

DOCUMENT RESUME

ED 140 949

PS 009 322

AUTHOR Kleinman, Harriet M.
 TITLE Effects of a Mother-Infant Program on Positive Feelings of New Mothers: A Pilot Investigation.
 PUB DATE Jun 77
 NOTE 109p.; Master's Thesis, California State University, Northridge ; Parts may be marginally legible due to print quality of the original document

EDRS PRICE MF-\$0.83 HC-\$6.01 Plus Postage.
 DESCRIPTORS Attachment Behavior; Child Rearing; Infant Behavior; *Infants; *Mothers; Parent Attitudes; *Parent Child Relationship; *Parent Education; Parent Role; *Program Descriptions; *Program Evaluation; Questionnaires; Self Concept

ABSTRACT

This paper describes and evaluates a program designed to enhance new mothers' self-confidence in their maternal role as a means of promoting optimal mother-infant interaction during the infant's first six months. Ten middle-class mothers and their healthy first-born infants were involved in an 8-week educational program which provided psychological support and information to the mothers. The program is described in terms of physical setting, procedures, objectives, methods and role of the leader. Details of the process and content of the group meetings are discussed. Changes in the mother's feelings in regard to her enjoyment of the baby, self-confidence as a parent and self-identity were examined. Evaluation tools used were: (1) a log of the meetings; (2) mothers' written and oral comments; and (3) a pre-test/post-test inventory. Self-evaluated changes in the mothers' feelings were compared with changes in the feelings of mothers in two control groups. It was tentatively concluded that this parent-support approach is effective in increasing the self-confidence of new mothers. Recommendations are made for related research. Appendices include materials used in the study. (Author/MS)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. Nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *

ED140949

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

EFFECTS OF A MOTHER-INFANT PROGRAM ON POSITIVE
FEELINGS OF NEW MOTHERS: A PILOT INVESTIGATION

A thesis submitted in partial satisfaction of the
requirements for the degree of Master of Arts in

Education

Educational Psychology, Early Childhood

by

Harriet M. Kleinman

PS 009322

June, 1977

The Thesis of Harriet M. Kleinman is approved:

Sarah Moskowitz
Sarah Moskowitz

5/19/77
(Date)

George (Jin) Ferrell
George (Jin) Ferrell

5/19/77
(Date)

Rose M. Bromwich
Rose M. Bromwich, Chairperson

5/25/77
(Date)

California State University, Northridge

ACKNOWLEDGEMENTS

Dr. Rose Bromwich, my committee chairperson, contributed an extraordinary amount of editing skill and knowledgeable support to this project. I am extremely grateful for the friendship and the gifted guidance that she generously extended to me over the past year.

I want to thank Dr. Sarah Moskovitz for her encouraging faith in my efforts throughout my sojourn as a graduate student and for her advice during the embryonic stage of this study. My thanks also go to Dr. Jim Ferrell, who provided a fresh critical view when delivery was close at hand.

The logistical support of several other people helped turn my idea into a satisfying reality. My warm appreciation goes to Maggy Haves for her donation of space for the group meetings at her outstanding pre-school in North Hollywood. I also want to acknowledge the cooperation of Pediatric Clinic personnel at Kaiser Permanente's Panorama City Medical Center. I thank Dr. John Fuerth, Chief of Pediatrics, and Norman Goldman, Clinics Administrator, for making this cooperation possible, and Bonnie Lipton, Chief of Social Services, for her assistance.

Loving thanks go to my family. My mother, Freda Honikberg, unhesitatingly provided an "emergency support system" during a critical week in this endeavor. My three daughters--Ellyn, Rachel, and Sharon-- were a constant source of emotional support, through their good-natured tolerance of altered family life, their encouragement when I wavered, and their unflagging readiness to listen to my troubles and my triumphs.

Most of all, I thank my husband and best friend, Mickey, for always expecting me to grow, and never reneging on a commitment to help it happen.

ABSTRACT

EFFECTS OF A MOTHER-INFANT PROGRAM ON POSITIVE FEELINGS OF NEW MOTHERS: A PILOT INVESTIGATION

by

Harriet M. Kleinman

Master of Arts in Educational Psychology,
Early Childhood Education

This investigation focuses on a particular method of parent education which attempts to enhance new mothers' positive feelings in the maternal role as a means of promoting optimal mother-infant interaction during the first six months of life. Ten volunteer, middle-class mothers and their healthy first-born infants were involved in an eight-week educational program which provided psychological support as well as information to the parent-participants. The program is described in terms of physical setting, procedures, objectives, methods and role of the leader. Details of the process and content of the group meetings are discussed.

Changes in the mothers' feelings in regard to their:
1) enjoyment of the baby; 2) self-confidence as a parent;
3) self-identity are examined. Evaluation tools are:
1) a log of the meetings; 2) mothers' written and oral
comments; and 3) a pre-test/post-test inventory. Self-
evaluated changes in the mothers' feelings are compared
with changes in the feelings of mothers in two control
groups.

It is tentatively concluded that this parent-support
approach is effective in enhancing new mothers' self-confi-
dence in the maternal role. Recommendations are made for
related studies and for replication of this study with a
larger number.

TABLE OF CONTENTS

	Page
Approval	ii
Acknowledgements	iii
Abstract	v
Table of Contents	vii
CHAPTER	
I INTRODUCTION AND REVIEW OF THE LITERATURE	1
Mother-Infant Interaction Parent-Oriented Infant Education Summary and Implications for Parent Education	
II METHODOLOGY	33
Problem Definition of Terms Study Design Description of Mother-Infant Program	
III OUTCOMES AND DISCUSSION	51
Identification of Mothers' Problems Group Discussion Topics Mothers' Reactions to Discussion Approach Inventory Results Self-Evaluation of Change Additional Indications of Effectiveness of Method	
IV SUMMARY, CONCLUSION AND RECOMMENDATIONS.	66

	Page
REFERENCES	72
REFERENCE NOTES	78
APPENDICES	79
A Individual Demographic Data	
B Sample of Flyer	
C Sample of Cover Letter and Pre-test (E Group)	
D Sample of Cover Letter and Pre-test (C Group)	
E Sample of Post-test (E Group)	
F Sample of Cover Letter and Post-test (C Group)	
G Individual Responses to Inventory Statements on Sub-Topic: Enjoyment of Baby	
H Individual Responses to Inventory Statements on Sub-Topic: Self-Confidence vs. Anxiety	
I Individual Responses to Inventory Statements on Sub-Topic: Isolation and Self-Identity	
J Individual Inventory Scores	
K Mean Group Responses to Inventory Statements	

LIST OF TABLES

1 Comparison of Group Profiles	36
2 Summary of Mean Group Scores	59
3 Comparison of Mean Group Responses by Sub-topic	60

CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

I'm glad you are investigating Parent education. For such an important job there seems to be little or no training and for those of us without family nearby or friends with children, it seemed like I came home from the hospital completely lost.

--note from a new mother

The triad of "infant-parent-educator" has been eliciting a growing current of interest among early childhood specialists and other professionals during the past 15 years. Reported research is now abundant on the youngest of preschoolers, including studies on infants designated as "normal", "handicapped", or "at risk" by virtue of physiological or environmental deficiencies. Also in evidence is a growing conviction that interactive systems in the early home environment positively influence children's long-term developmental gains.

Particularly in regard to work with infants (birth to approximately 18 months), investigators have placed emphasis on attributes and behaviors of the mother (or primary caregiver). A great deal of research has been directed toward increasing knowledge in the area of mother-infant interaction. It has been generally accepted that factors bearing on the quality of this interaction affect the

formation of "attachment bonds" (Bowlby, 1969) and that this attachment has implications for the child's optimal development in areas of socialization, emotional health and learning. Literature on this subject will be reviewed in this chapter.

A more recent trend toward the development of educational programs for parents of "disadvantaged" and "at risk" infants and toddlers (children aged 9 - 30 months, approximately), may be related to the increase of research interest in mother-infant interaction. A sampling of such programs will also be reviewed here.

Concurrently, some supportive new approaches to parent education have also been appearing in non-disadvantaged communities. Increasingly popular (in the Los Angeles area) are mother-toddler programs, in which safe environments are provided in order for: 1) mother and child to interact positively; 2) separation between mother and child to be practiced at an individual pace; 3) children to be comfortably exposed to new experiences; and 4) mothers to share with each other their parenting concerns. Details and evaluations of this approach have been recently documented. (Lieber, 1975).

Many mothers of young children experience feelings of isolation, inadequacy, and anxiety in the parenting role, partly because of the breakdown of traditional family

support systems in today's urban society. This seems to be especially true for new mothers in the initial months with a first baby. Therefore, the mother-infant group, an even newer modification of the above approach, now warrants serious attention as an additional opportunity for the parent education/early childhood specialist to help. This approach, as applied to the post-partum period, provides the advantage of prevention as well as opportunities for early detection and remediation of common interactive problems.

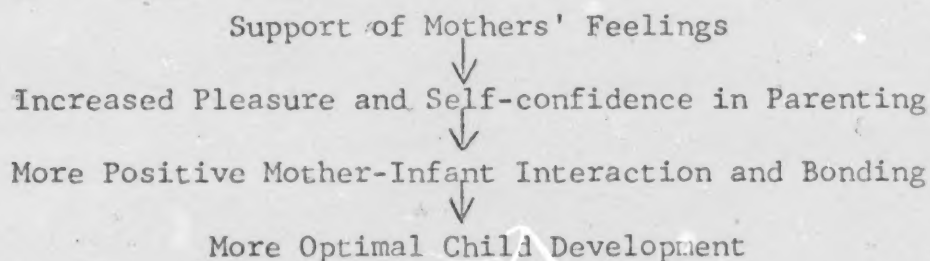
My own professional experiences and personal attitudes (as they changed through the past twenty years of teaching, parenting and learning) have led me to focus on this early point in the cycle of human development. My growing interest in exploring possibilities for helping children obtain an optimal start in life was fanned by opportunities to observe, then to participate in, and finally to initiate and lead mother-infant groups in several suburban Los Angeles communities. The majority of the participants have been college-educated, middle-class mothers in their late 20s, with first-born babies ranging in age from two weeks to ten months. Programs were usually from six to eight weeks long or ongoing. As my involvement with these groups increased and I became enthused about their possibilities for filling a social-educational need, I also discovered

that documentation and systematic evaluation of this non-clinical approach were lacking in the literature.

Clinical experience suggests that mothers' negative feelings about themselves as parents in the early months may have an adverse effect on the development of healthy attachment, or bonding, between mother and child.*

Conversely, enhancement of mothers' positive feelings about themselves should produce better interaction and more effective parenting. However, these propositions remain to be supported by research.

This project was conceived as a pilot investigation and as a stimulus for further research in this area by addressing itself to the first steps in the following hypothetical (and simplified) chain of cause-and-effect relationships:



*Bromwich, R.M. Personal communication, 1976.

My purpose is to report the objectives and methods of one educational and support program directed to new mothers of healthy first-born infants, and to evaluate the effect of the program in terms of self-perceived changes in the participants' feelings of pleasure and self-confidence in the maternal role.

Mother-Infant Interaction

After noting the major theoretical trends, this section will review the literature on the following aspects of mother-infant interaction: attachment, maternal deprivation, correlation of mother-infant factors, perceptual cognitive findings, individual differences and contributions of the child, and intercorrelations among mother-infant variables.

Major Theoretical Trends

Ainsworth (1969), in her theoretical review of the literature on mother-infant relationships, referred to the drive reduction theory. This theory, derived from Freudian concepts, suggests that the primary need of the infant for food becomes associated by reinforcement with the one who satisfies that need, leading secondarily to the infant's love for its mother. According to Ainsworth, Dollard and Miller later provided a transition from this view to that of the reinforcement learning theorists, such as Hull,

Thorndike and Skinner. Their concepts essentially involve changing the environment to modify behavior, e.g., through the use of "operant conditioning".

Currently, two views of mother-infant relationships co-exist within a psychoanalytic framework. One view, explicated by the so-called ego-psychologists (e.g., A. Freud, Erikson, Spitz and Mahler), suggests the following development: 1) the infant goes through a narcissistic stage, with total involvement in its own needs and no concept of "other"; 2) a transitional state of trust follows, in which the baby still sees the mother as a source of need gratification, but is confident enough to anticipate, wait, and show some cathexis in the environment; and 3) with the onset of "object permanence", the mother is seen as "separate" from the child, enabling true human relationships to ensue. There is an apparent connection between this psychoanalytic "object (mother) permanence" and Piaget's use of the term to denote the reality of inanimate objects outside of the self. (Ainsworth, 1969).

The other strand of this psychoanalytic thread, according to Ainsworth, is the object relations theory expounded most notably by Klein, Yarrow, and Bowlby. They believe that the infant's need for the mother is parallel to and independent of, not secondary to, the need for food.

Bowlby (1969) took this model an important step further by relating biology to psychoanalytic theory in an ethological approach, which states that there are "species characteristics", built into infants' behavioral systems, and activated or released by stimuli from "attachment figures".

Attachment Theory

Based on Darwinian evolution principles, Bowlby's concept incorporates the idea that genetically determined safeguards have evolved to guarantee survival through sustained parental care. However, it does not view feeding gratification as the essential basis for "attachment".

Ainsworth (1973), Maccoby and Master (1974) and Martin (1975), in their elaborations of Bowlby's ideas, have shed more light on the antecedents and hierarchical development of attachment. Bowlby's theory differentiates between attachment behaviors and the state of attachment. The former are intermittent activities which precede actual attachment as well as continue to mediate the state after it is attained. Behaviors are diverse, while attachment itself has a structural, intra-organic basis and exists over time. Attachment behaviors are those infant behaviors which promote proximity to, or contact with, a specific preferred figure. They include precursor behaviors, (rooting, sucking), signaling behaviors (crying, smiling, vocalizing), orienting behaviors (looking, postural change, following, approaching) and active physical contact (clinging, embracing, clambering).

While the "set-goal" of this system is to maintain proximity for survival advantage, the implementing behaviors are flexible and modifiable according to circumstances. They are part of a behavioral "control system" with built-in motivational forces which can be activated by hormones, environmental stimuli and central nervous system excitation, or deactivated, sometimes, by habituation.

It is a developmental model, integrating learning and maturation, with the following hierarchical phases: 1) indiscriminate social response (to approximately three months); 2) discriminating social response (approximately three to six months); 3) active initiative in proximity-seeking, contact-seeking, and contact-maintaining (approximately six months---); and 4) "goal-corrected" reciprocal relationships with adaptation to mother's "set-goals", mutuality (36 months---).

Minimal conditions for the attainment of attachment are: 1) developmental/learned discrimination and 2) object permanence (in the Piagetian sense). The child's attachment behavior is in balance with other systems just as the mother's caretaking behavior is in balance with her other drives. Equilibrium must be found between the infant's contacting and exploring drives on the one hand and the mother's conflicting urges to retrieve or achieve other goals on the other hand.

Bowlby, while influenced by Piaget, believed "attachment" to be a better term than the psychoanalytical "object relations" and, in fact, his attachment theory did become the basis for a great deal of the empirical research done in the last decade.

Early Research on Attachment

A landmark longitudinal study on attachment in infancy was conducted in Glasgow by Schaffer and Emerson (1964). Based on Bowlby's attachment theory and stimulated by Harlow's work with infant monkeys (1961), Schaffer and Emerson's research aimed at delineating age of onset of attachment, intensity of attachment, objects of attachment and individual differences related to those parameters. They collected data at regular intervals on 60 normal infants (1-18 months) from working-class families, using the Cattell Infant Scale, an Attachment Measure and a Fear-of-Strangers Measure.

They found the infants seeking interaction with the social environment from the first weeks of life, using the means at their disposal, generally crying, to show unrest or dissatisfaction. The motivational effort in seeking attention was sometimes clearly not related to satisfying physical needs. Thus, an attachment need was postulated as a directional force in the organism.

Other major findings of this study were: 1) individual differences in over-all intensity were seen partly as a function of environmental forces and partly due to inherent characteristics; and 2) there was a tendency of some infants to react positively or negatively to relevant stimulation in social situations, suggesting the likelihood of a "social sensitivity" factor.

Attachment to a specific person was seen to develop in all of the infants, usually in the 6-9 month age range, as borne out by cross-sectional and longitudinal parameters. By this time, the smiling and proximity-seeking behaviors had become discriminating, congruent with the Piagetian milestone of "object permanence" at the same age. Some other findings were: 1) fluctuations in attachment intensity not accountable by changes in external conditions appeared over time; and 2) environmental stimulation of all kinds was sought by the infant, but the human being, with its highest arousal potential and variability, was the most desired source of stimulation.

While the Schaffer and Emerson studies were being carried out, a related landmark observational study using 28 Ugandan infants and mothers was being conducted by Ainsworth. She described this study retrospectively (1973) in terms of similar objectives and observations. From her findings she formulated a 5-phase developmental model of

attachment, including: 1) an indiscriminating stage, 2) differential responsiveness at close range; 3) differential responsiveness at a distance; 4) active initiative in interaction and contact; and 5) emergence or increase in stranger anxiety and marked clinging to the attachment figure when under stress.

Understanding of nuances of mother-infant attachment has continued to be refined in current research; e.g., by Ainsworth, Bell and Stayton (1964); Ainsworth and Blehar (1975); Carr, et al (1975); Ramey and Mills (1975); and Yarrow (1976).

Studies on Maternal Deprivation

Prior to and along with dissemination of Bowlby's attachment theory, early studies of maternal deprivation were instrumental in catalyzing further research in mother-infant interaction. As outlined by Clarke-Stewart (1973), landmark studies of the 1950's included Skeel's report of institutionalized children raised by retarded women, Anna Freud's studies of children in war-time Europe, and cases reported by Schaffer, Bowlby, and Spitz showing adverse effects of continued separation. In her review, Clarke-Stewart also noted that developmental psychologists apparently became intrigued with the picture emerging from these studies-- that mother-child relationships, or

"attachment bonds", are connected to a general capacity of a child to relate to others and express emotions. And while few children undergo the extreme maternal deprivation of those early studies, it did appear that interpersonal experience during infancy might be especially important for the forming of social structures throughout life. In his review, White (1971) noted that there was growing suspicion that the same factors might be connected with future language development, intellectual competencies and intrinsic motivation.

Clarke-Stewart (1973) also pointed out that research in the 1950's and early 1960's, stimulated by the findings on maternal deprivation, showed that purely physical caretaking variations had no significant relationship with infant development and that total contact time, or "maternal availability" beyond a certain minimum, made little difference. It seemed apparent that dimensions more complex than gross caretaking patterns or measures of quantity alone would have to be explored.

Correlating Mother-Infant Factors

A body of literature began to accumulate which suggested correlations between child development and certain maternal characteristics having to do with personality, feelings and attitudes. Clarke-Stewart (1973) noted that

clinical cases presented by Escalona, Lewis, and Spitz in the 1950's had pointed to a connection between maternal rejection or coldness and children's retarded intellectual development. A study from the Child Study Center at Yale by Coleman, Kris, and Provence (1953) suggested that adaptability of parental attitudes had important implications for understanding impairment of parent-child relationships and that this factor deserved more attention for early diagnosis of expected difficulties.

More recent empirical research by Davids in 1968, (Clarke-Stewart, 1973), showed a correlation between maternal anxiety or negative attitudes and children's retarded intellectual development. Conversely, researchers such as Lakin, Moss, and Stern were finding that mothers who projected positive, accepting attitudes and who were eager for interaction seemed to promote their infants' development. Additional research, most notably by Stern, Caldwell, and Yarrow (separately) showed significant correlations between mothers' overt demonstrations of affection and their children's enhanced development, involvement with mothers, social and play initiative and ability to cope with stress. (Clark-Stewart 1973). Also, research on mothers' early perception of their first-born babies

(Broussard and Hartner, 1971) indicated that a mother's satisfaction with her interaction with her child at one month post-partum can be a reliable predictor of on-going positive relationships and the child's subsequent development.

Perceptual-Cognitive Research

The 1960's also saw an increasing interest in exploring perceptual-cognitive approaches to development, in relation to mother-infant interaction. According to Clarke-Stewart (1973), studies on physical handling presented by Ainsworth, Lewis and Goldberg, Provence and Lipton, and Yarrow showed that gentle, close, frequent handling was beneficial for early cognitive and motor development, as well as for attachment, but that it can become restrictive as the child matures. Various aspects of verbal stimulation studied by Goldberg and Lewis, Gordon, Irwin, Schaefer and Kagan indicated that distinctive and frequent reading and talking leads to more frequent vocalizing by the child and greater language ability. Rubenstein, Yarrow and Goodwin found that verbal and visual stimulation during play accelerates and generally benefits development. (Clarke-Stewart, 1973).

Yarrow also led a research team in exploring the maternal role as mediator of environmental stimulation and noted a correlation between the mother's skillful provision of

play materials and activities and the child's skill with objects and general cognitive ability. In general, they concluded that the amount and variety of stimulation were more consistently predictive of infant variables than was the mother's preferred sensory mode of stimulation. (Yarrow, et al, 1972).

Clarke-Stewart (1973) reported that Rheingold and Gewirtz (separately), as well as Yarrow and his colleagues, found that social responses from the mother which were contingent upon the infant's smiling or vocalizing increased the frequency of those behaviors. Clarke-Stewart and others, notably Ainsworth, Bell and Stayton (1974), suggested that through the mother's prompt and contingent responses to his signals the infant learns that his behavior has consequences. Thus, a generalized expectancy of some control of his environment may develop, providing the motivational basis for further learning.

Individual Differences and Contributions of the Child

The cross-sectional studies on perception and cognition were generally of high precision, but with small samples, of restricted scope, and on isolated phenomena. Except for some of the literature on attachment, with its emphasis on social development, such as Sander's (1969) and two large-sample retrospective growth studies (Berkeley and

Fels), there were few longitudinal observational studies on infants completed in the 1960's. One major exception was a study of individual differences in temperament by Thomas, Chess and Birch (1963). This was long-term, intensive research on 130 infants, with monthly assessments leading to data on individual differences, continuity of temperament and differential stimulus effects on parents. The finding that each child has an individual pattern of primary reaction, identifiable in infancy and persistent over time, had enormous implications and brought back into balance the perennial swing of the heredity-environment pendulum.

Richard Q. Bell (1968) also studied congenital predisposition to personality types and found direct evidence of congenital factors contributing to two classes of child behavior (impaired sensory motor development and hyperactivity) with different effects on parents. Bell (1974), in a more recent theory paper on the contribution of infants to caregiving and social interaction, summarized his conclusions as follows: 1) the young change the general status of their behavior, so that effects on parents in subsequent periods of development are different; 2) behavior of the young falls between extremes of degree and timing and; 3) the greater maturity and long-term intention of parents is offset by the sheer volume of interactions started by the young. Ainsworth (1972) proposed that in the early

months, when interaction depends a great deal on the infant's effectiveness in eliciting maternal responses, responsibility rests on the mother to adjust her behavior to the specific characteristics of her infant.

Several researchers have pointed out that individual differences apply to all members of the interactional system. Yarrow (1970) found some foster mothers responding differently to the same infant and found some infants obtaining the same response from different mothers. Thomas, Chess and Birch (1969) offered case examples of children with similar temperaments developing different relations with parents because the parents reacted differently to the same trait and, conversely, children with different temperaments developing similarly because of similar parental responses. Brazelton (1969) popularized the concept of differences in infants and mothers and the desirability of viewing normal development in that context.

Intercorrelations Among Parent-Infant Variables

Schaefer and Bayley (1963) were among the first researchers to approach the problem of studying and measuring inter-connecting variables of both maternal and child behavior, over a long period of time. They intricately correlated data from maternal observations in infancy and maternal interviews at pre-adolescence with ratings of

child behavior on 27 boys and 27 girls from infancy to pre-adolescence, available through the long-running Berkeley Growth Study. The separate longitudinal analyses provided a basis for analysis of mother-child interaction, with consistencies and changes suggesting changing patterns through time. Data from the same periods also allowed cross-sectional analyses and prediction from early mother-child interaction.

Two interesting findings from the 0-36 month age range were: 1) a significant correlation between the maternal love-hostility dimension and children's happiness, positive behavior and calmness; and 2) a relation between hostile maternal behavior and early activity and rapidity in sons.

Yarrow and Goodwin (1965) felt that even more needed to be done in conceptualizing varieties, subtleties and complexities of mother-infant interaction. They were interested in examining a wide range of patterns in maternal care, uncovering areas of competence and weakness reflecting the mother's experiences and personality characteristics. Also, they hoped to fit the complexities of maternal care into a conceptual framework including other environmental and experiential conditions operating on the child.

Yarrow (1970) included in his longitudinal study of adopted children a further analysis of maternal functioning, with variables limited to simple and definable modes of

mother-infant interaction. Observations of the infants (40 adopted, 119 in foster homes) in interaction and interviews yielded data which supported the hypotheses that: 1) a certain amount and quality of maternal stimulation promotes intellectual development; and 2) less frustrated babies are more capable of handling stress. Also, direct efforts to elicit social response were found to be not as effective in developing social behaviors as an atmosphere with high levels of positive affect. Interestingly, consistency had a low positive relationship to developmental progress, social initiative and ability to handle stress. Exclusiveness of mothering was not significantly related to any infant behavior. Autonomy and adaptability were also unrelated to environmental influences--perhaps because of genetic predispositions. It was apparent that the personalities of the infants altered environmental factors to a great degree.

Lastly, in regard to separation trauma, all of the babies who changed mothers showed some disturbance, as indicated by blunted social response, excessive clinging, crying, apathy, developmental regression and poor adaptation to routine. But the degree of vulnerability varied according to developmental periods; i.e., minimal disturbance before the period of object relations formation, 86% with severe problems at six months, and 100% for the babies

over seven months, thus suggesting a somewhat critical period for separation from attachment figures. The cases also suggested that the effects of early potentially traumatic experience may be influenced by constitutional factors and other experiences preceding and following the event.

Upon further development of the inter-relationships research model, Yarrow, et al, (1972) presented findings from a study (using 55 infants aged five to six months from a low socio-economic setting and 15 from a middle-class community) which they believed to have relevance for a broader spectrum of environments. Properties of social environments were analyzed in several dimensions: 1) discrete behaviors of mothers; 2) level of social stimulation; 3) variety of social stimulation; 4) contingency of response; and 5) expression of positive affect (characteristic level of demonstrativeness). Among their findings were these significant relationships: 1) maternal contingency response to distress to the infant's Mental Development Index score (Bayley) and goal-directed behavior measures; 2) amount of infant's positive vocalization with maternal response to vocalization; and 3) infant's goal-orientation with Mental Development Index scores. Motivational differences were seen to have a great influence on early expressions of competence.

Also, there were high, but differentiated, correlations between social and inanimate stimulation variables. Variety of inanimate stimulation was highly related to cognitive, motivational and fine motor variables. In his portion of this presentation, Pederson theorized that the greater influence of "variety" on infant development lies in arousing and promoting adaptation. He suggested that perhaps a baby adapted to a high level of variety desires more stimulation which, in turn, produces more capacity for information processing. Yarrow concluded that: 1) stimulation variables (both social and inanimate) relate to goal-directed behavior; 2) motivational behavior apparently becomes part of a system of reciprocal interaction characterizing transitions over a period of time; and 3) this orientation may be consistent and more important than specific cognitive ability because it adds to the continuity of experiences. Yarrow felt that this progression has great significance for developmental theory and for intervention programs. (Yarrow, et al, 1972).

While Yarrow and his colleagues were developing this approach to studying aspects of mother-infant interaction, Clarke-Stewart (1973) was also attempting to deal with the complexity of the subject. In her study of 36 mothers and infants (9-18 months old), she repeatedly observed the dyads as they interacted at home and in a structured labo-

ratory setting. Ratings, frequencies, and measures of contingencies between mother and child behaviors yielded data on infant variables, maternal variables, and mother-child relations.

A high linear relationship was found between factors of children's competence and maternal care. More specifically: 1) children's language development was related to maternal verbal stimulation; 2) children's skill with objects was related to the mother's presentation of play materials; and 3) mothers' and children's positive social behavior toward each other was interrelated and bi-directional. In summary, Clarke-Stewart suggested that the "optimal mother" is adaptive, responsive (especially to distress in the first year and to social behavior in the second year), and exhibits warm, loving, accepting and stimulating behavior.

A great deal of interest continues to be shown in the connection between mother-infant interaction and long-term gains in intellectual functioning, as exemplified by research reported by Escalona and Corman (1974), Tulkin and Covitz (1975), Elardo, et al (1974) and White (1974). And along with further refinements of mother-infant interaction and attachment, current research has also been shedding light on broader elements of the home environment. Studies including the father and other non-maternal

figures in the infant's interactive system have been conducted recently by Lamb (1975), Parke (Note 1), Pederson (1975) and Leiderman (Note 2).

Parent-Oriented Infant Education

Findings in support of mother-infant theories have led to a stage of application to community-oriented field programs. Generally sponsored by government agencies and/or university child development centers, an increasingly large amount of longitudinal research in the past ten years has been combined with extensive projects aimed at delivery of services to communities and young children most in need. This section will review the literature on several evaluated projects, including some which fit into a home-visitor model. Others are center-based, day-care oriented, and/or involve a combination of approaches.

Home-based Models

To some degree, the current trend to integrate mother-infant theory with research-intervention programs sprouted from a "failure". A pioneer home-tutoring effort was the Infant Education Research Project conducted by Schaefer in Washington, D.C., in 1963. Eight college students were trained to work with low SES babies in their homes, providing frequent enrichment experiences and concentrating on verbal stimulation. After 21 months, the IQ gains were

dramatic. However, these initial improvements in cognitive functioning proved ephemeral. In his retrospective evaluation, the author-investigator placed blame on: 1) starting too late (babies were 14 months or older at the onset); 2) ending too soon; and 3) not involving the parents. (Schaefer 1973).

Confirmation of this evaluation has come from several sources. One is the Ypsilanti-Carnegie Infant Education Project developed by Lambie, Bond and Weikart and documented in their book, Home Teaching with Mothers and Infants. (Lambie, et al, 1974). In this long-running ongoing program, the curriculum is based on Piagetian theory; but the focus has been on the mother as the mediator of the child's environment. A primary objective has been for the mother to become a more effective facilitator of her infant's cognitive ability by: 1) gaining knowledge of the learning processes and the course of development; 2) interpreting the child's behavior more accurately; and 3) responding more appropriately.

In this model, the mother is assumed to have capacity for adequate child-rearing but is offered support in overcoming specific common problems and in developing her own skills in problem-solving. Parents and educators are humanistically considered as co-equal resources for each

other in helping the child, and individual differences in values and cultural mores are respected. Using a professional home visitor approach, this project/study has shown long-term gains in IQ and linguistic skill for the 65 experimental, low SES infants, (Lambie, et al, 1975).

Encouraging results were also gained from a New York project in which verbal interaction between mother and infant was fostered by home visitors. Although it, too, utilized a structured cognitive approach, this model was based on the theory that reciprocal interaction strengthens emotional attachment, and that this, in turn, leads to increased motivation of the young child to attend to and learn from his mother, (Levenstein, 1970).

The Home Intervention Program, part of the UCLA Infant Studies Project and still in the evaluation stage, was oriented to babies "at risk for developmental disabilities", not necessarily from a low socio-economic background. This model was geared to support of maternal functioning, as well as to the infant's progress. (Bromwich, Note 3). In some cases, the mother was not the primary caregiver, but in any event attention was paid to the global interactive system of the family. As an outgrowth of this project, a progression of maternal behaviors, an assessment instrument for intervention, has been developed. (Bromwich, 1976).

Center-based Intervention Models

Many parent-oriented programs have used a center approach, often supplemented by home visits. A prototype for this model was the intervention program for disadvantaged preschool children developed at the University of Illinois in the 1960s. In this project, mothers first met in groups of ten, without their babies, and received the combination of a child-centered presentation on materials and teaching techniques and a mother-centered discussion aimed at attitude change through group interaction. These meetings were supplemented by monthly home visits by staff to reinforce and observe the appropriateness of the material and the effectiveness of the individual mother. After 15 months, the 20 low SES experimental children were found to be significantly superior to the control group on the Stanford-Binet and the ITPA. And the mothers were seen to have improved considerably in self-confidence, leadership skill, and a propensity for community involvement, (Karnes, et al, 1970).

Badger (1972) reported on her translation of the above university-based model into a community-center approach. As one of 35 pilot Parent-Child Centers (PCCs) funded by the OCD in 1967 as an outcome of the government Headstart evaluation, this program was center-based but used mother trainees as a critical component of the staffing for the

infant-toddler and older preschool children's groups. The mothers on the staff became the core of an Infant-Outreach Program, bringing center-learned activities and approaches into more homes in the community. Quality of mother-infant interaction was stressed.

The Houston Parent-Child Development Center (University of Houston) was one of three Parent-Child Development Centers (PCDCs) founded in 1968 by the OEO for extensive research along with delivery of service. This pilot program for disadvantaged Mexican-American families combined home visits with a center for parents and infants, in that order. Experimental children were found to be superior to controls on the Bayley Mental Development Index, the Stanford-Binet and Palmer's Concept Familiarity Index. Also, after the second year of intervention, participating mothers were evaluated as being warmer, less intrusive, and more sensitively responsive to their children than the control mothers. (Johnson, 1975).

The various strategies of the pilot PCCs and PCDCs are still being evaluated, with mixed reviews so far because of wide-ranging differences and difficulties. According to Work (1972) and Chilman (1973), the original objective, improving the child-parent interaction, has sometimes been lost.

Day-care Models

Some university-center programs are committed to a day-care approach, but still give high priority to parent education and involvement, as well as to optimal caregiver-infant interaction. One such program that places great importance on the attachment and affective bonds for learning is the Family Development Research Program at Syracuse University's Children's Center. In this program, comprehensive and extensive services to families are made available on the theory that changes in home environment are needed for long-term meaningful gains. Paraprofessional child development trainers (CDTs), indigenous to the community, work in the Center's nursery, called the "Infant-Fold", and are also home visitors. Each child's special caregiver works at developing an Eriksonian trust-relationship and the staff maintains close liaison with the mothers, (Lally and Honig, 1975).

"First Chance" is another recently developed program directed to parents of babies and toddlers with physiological handicaps, or "at-risk". Part of the Infant-Parent Training Program connected with the Austin-Travis County Mental Health Mental Retardation Center, this program uses a general approach to interacting with infants as the basis for the curriculum. A hierarchy of changing caregiver roles is matched to changing infant functions, (Drezek, Note 4).

A Continuum Approach

The Houston Parent-Child Development Center described earlier utilizes a home - visitor approach followed by a center-based program. Another example of this type of project is the one developed by Gordon at the University of Florida's Institute for Development of Human Resources. Termed "a home learning center approach to early stimulation", this model uses low-income women from the community, who are trained to tutor mothers at home, using learning games based on Piagetian sensorimotor theory. The objectives are to help the mothers become more sensitive to infant development and to encourage them to get more pleasure from their infants.

Results of testing in this program showed long-term positive effects, especially for children who were in the program from three months to three years of age. Children tested at age six, three years after their involvement in the program ended, were found to have retained their earlier gains in IQ, (Gordon, 1973).

Summary and Implications for Parent Education

Findings from this research combine with the others reviewed here to lend support to the generalization that parent-oriented infant intervention has more lasting effects the earlier it is begun. Bronfenbrenner (1975) has

agreed with this conclusion and also with Gordon's premise (1973) that intervention directed to parents should precede child-centered group intervention. He recommended that, as part of an ideal long-range continuum for intervention, a third stage (after preparation for parenthood and economic security) should be the establishment of child-parent relationships of reciprocal interaction, centered around activities which are challenging to the child. He feels that support of the parent as the primary agent of intervention in the first three years of life should be offered through home visits, group meetings and family centers. Schaefer (1970) also has stated his belief that attempts should be made to alleviate stress on families by providing social support to mothers at the time that initial mother-child attachment should be developing.

In addition, Clarke-Stewart (1975) suggested that there is a great need for application of conclusions, based on observational studies such as her 1973 research (reviewed in the previous section), to programs of experimental observation. Broussard and Hartner (1971) pointed out that: 1) the present system does not provide professional support for mothers during the initial post-partum period; 2) there is need for such support; and 3) such tools as their Neonatal Perception Inventory increase the possibilities for early identification of infants at risk for

subsequent emotional disturbance, while allowing maximum opportunity for therapeutic intervention. And Aaronson (1975) recommended that goals for future research in parent education should include: 1) replacing deficit models with a more positive approach; and 2) helping middle-class families with early parenting needs.

The proliferation of intervention programs directed to parents of very young children is a promising trend. Parents, to be motivated to change, must believe that alterations in practice are reasonable and they should have options in choosing procedures. Therefore, various approaches to parent education should be available to match varying individuals' needs.

Research findings suggest that a supportive-educational approach might also help parents to develop a greater sense of control over their own lives and trust in themselves as problem-solvers. Along with the increasing parenting knowledge and skill per se, enhancing parents' own self-image of worth and confidence would be a worthwhile objective for parent educators, whatever their variation in approach might be. A study by Medinnus and Curtis shows "parental self-acceptance to be an important antecedent to the child acceptance (by the parent) which, in turn, is essential to the child's own self-acceptance" (Bromwich, 1973). Nevertheless, the prevailing emphasis

in some infant education programs is still on the promotion and measurement of cognitive skills. Because of the many findings in the literature showing correlations between optimal mother-infant interaction and all areas of development, the more basic goal of finding ways to foster such interaction in the early months of life appears to be a more meaningful one.

Such a goal implies the need for crossing socio-economic lines, with attention being paid to the needs of middle-class, as well as disadvantaged, parents for support. In this age of increasing isolation of young families, new parents of all social milieus might need help in establishing self-confidence and optimal interaction with their infants. Also, physiologically sound babies would benefit from more effective parenting, no less than handicapped infants. The valuing of emotional health for all dictates an effort in this direction.

The literature suggests that there is a real need for further experimental work involving evaluations of varying approaches for accomplishing this goal, particularly in the area of programs for non-disadvantaged mothers with "normal" infants in the first six months of life. The following pilot investigation of the effect of one mother-infant education and support program on new mothers is an attempt to contribute toward filling this need.

CHAPTER II

METHODOLOGY

In this chapter, the problem will be stated, terms will be defined, and the study design will be described, including the sample, the sampling procedure, description and use of the evaluation instruments and discussion of some design problems. Also, the mother-infant program will be described, including physical arrangements, procedure, objectives, methods, and role of the leader.

Problem

Will an educational and support program directed to new mothers of healthy infants result in the enhancement of the mothers' self-perceived feelings of pleasure and confidence in the parenting role?

Definition of Terms

healthy infants - babies reported (by mothers) to be free
of any acute or chronic medical problems
at the beginning of the program

pre-natal education - natural childbirth or pre-parenting
classes

post-natal parent education - programs for new parents

peri-natal problems - diagnosed temporary ailments of
mother or baby during labor, delivery,
or in the first few days after birth

isolation - refers to mothers' feelings in regard to contact with other adults; a sense of being "cut off", or "locked in" with the baby

post-partum depression - a clinical or sub-clinical emotional state of mothers following child-birth and involving feelings of anxiety or "blues"

Study Design

Sample

This study is based on material from 25 mothers of healthy infants, aged two to four months at the start of the experimental program (February 3, 1977). One mother heard of the program through the Head Nurse of Maternity at Valley Presbyterian Hospital in Van Nuys, California. All of the other mothers are members of the Kaiser Permanente Health Plan and utilize the Panorama City Medical Center in the San Fernando Valley. All subjects reside in predominantly middle-class, white, suburban communities in the greater Los Angeles area. (See Table 1)

The experimental group (E) consists of ten mothers of first-born infants, all volunteers participating in a free eight-week mother-infant program.

One control group (C₁) consists of eight mothers of first-born infants, with no participation in a post-natal education program.

A second group (C_2) consists of seven multiparous mothers with the same age infants and no participation in post-natal parent education programs. (This group was added in anticipation of interesting differences between mothers of first-borns and those who were more experienced parents.)

The three groups are matched on the following variables: mother's age, utilization of pre-natal childbirth or parenting education classes, peri-natal health problems of mother or infant, and child-care situation. There was some difference in mother's education in that 90% of the E group had attained an educational level beyond high school as compared to 75% of the C_1 group and 28% of the C_2 group. Also, 60% of the E group and 50% of the C_1 group reported having a "support system" as compared to 86% of the C_2 group. (See Appendix A for individual demographic data). At the start of the program it was learned that, of the ten participating mothers, six had worked in professions; i.e., nursing, teaching, natural child-birth education and library science; one had been a secretary; and three had been homemakers and/or students. The possible effect on study results of certain "volunteer characteristics" within the E group will be discussed later in this chapter.

TABLE 1
Comparison of Group Profiles

Demographic Variables	E (n-10)	C ₁ (n-8)	C ₂ (n-7)
Age of Mother			
Range	22 - 31	23 - 34	23 - 36
Mean	26.4	27.6	28
Mother's Education			
Less than High School	0	1	1
High School Graduate	1	2	4
College (1 - 4 years)	5	4	2
Post-graduate work	4	1	0
Utilization of Pre-natal Classes			
None	2	2	2
One or More - LaMaze, Bradley, Red Cross, Kaiser, La Leche, Child Development - (Jr. College)	8	6	5
Peri-natal Medical Problems			
No	7	6	5
Yes - (premature birth, C-section, migraine, baby's jaundice, mother's hemorrhaging, tubal ligation)	3	2	2
Availability of Friends/Relatives			
Yes	4	4	1
No	6	4	6
Child-care Situation			
Home full-time	7	6	6
Works full-time (Use of day-care; relative)	0	1	1
Works part-time (Use of day-care; spouse)	2	0	0
Student part-time	1	1	0

Sampling Procedure

The Chief of Pediatrics and the Clinics Administrator of Kaiser's Panorama City Medical Center provided support for this study by allowing flyers (See Appendix B) to be placed in the well-baby clinic and pediatric reception areas. Interested mothers picked them up and then called for details on joining the eight-week program. The first 12 women who called were enrolled in the experimental group. Six others were placed on a waiting list. After replacing a few mothers who dropped out before the first session for a variety of reasons, the final number was left at ten mothers and their babies.

The prospective participants were told, when they phoned, that the program was being offered free as part of a graduate project studying the usefulness of such groups for mothers. They were informed that two questionnaires would be forthcoming, one before the first meeting and one involving their own evaluation of changes in feelings eight weeks later. They were assured of anonymity in this report. All participants were then mailed a copy of the "Questionnaire for New Mothers - Part I" (pre-test) with a cover letter (See Appendix C) confirming where and when the group program would take place.

During this time period (January, 1977), copies of the pre-test followed by slightly different open-ended questions and explanatory cover letter (See Appendix D) were placed in the Kaiser well-baby clinic, where they could be seen and picked up by prospective members of the control groups. Kaiser policy required that the mothers volunteer, without solicitation, to fill out the forms and to provide their own names and addresses for further contacting. Out of 150 questionnaires (pre-test) taken, 20 were returned (13%): they were left with clinic personnel or mailed to me directly. There were 11 respondents with first-born babies; eight of these later returned the post-test and formed the C₁ group for this study. Eight of the nine responding mothers who had more than one child returned the post-test; seven made up the C₂ group. (One mother was not included because she was enrolled in another mother-infant program.)

Description and Use of Evaluation Instruments

The "Questionnaire for New Mothers" developed for this study includes a pre-test and a post-test (identified as Part I and Part II in the Appendix.) Each of these is composed of two sections: 1) a 20-statement inventory of positive feelings relating to parenting; and 2) a questionnaire section for background information and open-ended comments.

The inventory is the same (except for order of statements) on both the pre-test and the post-test and for all subjects. It provides for a five degree range of responses, from "Strongly Disagree" to "Strongly Agree", to statements referring to feelings of: 1) enjoyment of baby; 2) self-confidence vs. anxiety about mothering competence; and 3) isolation and maternal-role conflicts. Various aspects of the three variables in the inventory are reflected by the breakdown of statements into sub-topics, as follows:

Enjoyment of Baby

1. I enjoy feeding my baby.
2. I like playing with my baby.
3. I am pleased with my baby's development.
4. I enjoy changing, bathing, and dressing my baby.
5. I enjoy having my baby near me when he/she is awake.
6. It's fun to "talk" with my baby.

Self-confidence vs. Anxiety About Parenting Competence

1. I know my baby's needs better than the "baby book" experts.
2. I understand my baby's moods and feelings.
3. I am usually able to soothe my baby when he/she is distressed.
4. I'm comfortable about the nutrition that I am providing for my baby.
5. I think I have good "instincts" as a parent.
6. I know what my baby's sounds and movements mean

most of the time.

7. I can anticipate what my baby will be doing in coming months.
8. I feel I can meet my baby's changing needs as he/she grows older.

Isolation and Identity Conflicts

1. I have enough time to pursue some personal interests outside of parenting.
2. I have contact with friends who share my current interests.
3. I am content with the amount of help I get with child care.
4. My husband and I basically agree on our goals, values and attitudes toward parenting.
5. I feel I am "growing" along with my baby.
6. I feel good about being a mother.

Answers were given the same value as the response number for each item (1, 2, 3, 4, or 5) and then totalled for a possible score range of 20-100. Overall mean group scores will be summarized and compared in Chapter 3. Changes between pre-test and post-test will be noted. Differences between experimental and control groups' score changes will be examined for additional indications of the program's effectiveness. Limitations placed on generalizing due to sample size will be discussed.

The questionnaire section contains several components:

- 1) the same demographic information is requested from all subjects to provide for matching of variables related to mother's age, mother's education, pre-natal education, experiences, peri-natal problems, availability of supportive friends or relatives, and child-care situation; and
- 2) similar kinds of open-ended comments are elicited from the experimental and control groups, as follows:

On the pre-test, experimental mothers are asked what they hope to gain from participating in the mother-infant program and what areas of concern they would like to have brought up in meetings. Control group mothers are asked for suggestions and/or opinions regarding any pre-natal education classes they might have had (to help identify attitudes held during the post-partum period).

On the post-test, experimental mothers are asked to provide explanations of any self-perceived changes in their feelings during the past eight weeks in regard to maternal pleasure, self-confidence and self-identity. They are then asked if they feel that the group meetings contributed to these changes and, if so, how. They are also asked to provide criticism of the program in regard to how their needs were met and to suggest additional ways of helping other mothers in similar settings. Control group mothers

are asked questions designed to help identify any changes in feelings in the same areas of maternal self-concept listed above. (See Appendix E - Post-test for E group; and Appendix F - Post-test and cover letter for C groups.)

The post-test was given to the experimental group at the seventh meeting of the program, to be filled out at home and returned to me at the final meeting or mailed. All were returned. The post-test was mailed to the control groups at the same time (March 17) with a cover letter and self-addressed stamped envelope enclosed. Fifteen out of the 20 original respondents returned the forms by the deadline of April 1, 1977.

A detailed anecdotal journal of the experimental group meetings was kept by the leader-investigator and the contents will be utilized, in conjunction with the participants' written self-evaluations (post-test), to identify changes in the three areas of feelings listed above.

Statements transcribed from a tape recording made during the last sessions' oral group evaluation will also be examined for indications of change and opinions of the method.

Problems Relating to Sample Size

In order to assure an adequate number for even a limited pilot investigation, it was necessary to utilize the resources of a large organization. Kaiser Permanente administrators were first approached, in June 1976, for support of a much larger-scaled project, which might have yielded significant results. However, higher priorities for other types of programs at the time precluded the Patient Education and Research Chairman from endorsing that effort, which the Chief of Pediatrics and the Clinics Administrator had been considering as the first step in making an on-going mother-infant program available to Kaiser members.

Due to problems of time and access to prospective volunteers, this study was limited to ten mothers in one experimental group and 15 mothers in two control groups. This small number places restrictions on generalizing from the results. For example, results might be skewed due to the inclusion of one experimental mother's score which was considerably lower than all of the other 24 in the sample. (See Appendix J for individual score comparisons.)

Volunteer Factors

As explained earlier, this project required the use of volunteer, rather than randomly selected, subjects. Consideration had to be given, therefore, to the possibility

of particular volunteer characteristics further skewing results. Rosenthal and Rosnow (1975) have reported some findings regarding use of volunteers in research. One of their conclusions states that study volunteers, as compared to non-volunteers, tend to be better educated, higher in need for social approval, and more sociable. Observation of participants in this project indicates that most of the experimental mothers fit that description. However, it is possible that the control mothers might have exhibited the same traits to a similar degree since they, too, volunteered to fill out two questionnaires; and 12 out of the 15 said they would have joined such a group if they had been aware of such an opportunity.

Mothers in this type of program probably would be volunteer participants, but it should be kept in mind that subjects in a non-experimental setting might not respond in the same manner as this self-selecting group.

Problems Related to Measurement

Difficulties are generally encountered in attempting to identify changes in people's feelings or attitudes. Numerous variables difficult to control, such as subjects' verbal ability, self-awareness, behavior standards, plus factors such as household distractions when tests are self-administered at home undoubtedly influence responses.

Efforts were made to gather reasonably valid and reliable data by: 1) accepting all volunteers who fit the stated criteria as experimental or control group members; 2) assuring participants of anonymity; 3) matching groups on several variables; and 4) utilizing several evaluation tools. Also, entries were made into the weekly log immediately after each meeting, while memory of incidents and dialogue was fresh. A tape recording was made at the last meeting, with participants' knowledge, in order to obtain a verbatim transcription of participants' expressions on aspects of the program in the group setting. The written comments requested from each individual were produced in a private home-setting to encourage candor and careful thought. An appeal for honest reactions was made by referring to participants' altruistic motives in helping other new mothers by their frank responses.

On the inventory, respondents were given a five-degree range to allow for more specific reaction, including one of neutrality. Statements covered several aspects of each variable to allow for a range of varied responses in any of the areas. Order of statements was random to discourage a reflexive pattern of responding.

A variety of instruments were used in an attempt to deal with the problem of reliability. It is hoped that

these results, derived from inventory scores and written and oral comments will have value as stimuli for further study by more sophisticated methods.

Description of Mother-Infant Program

Physical Arrangements

A colorful clean sheet and toys were placed on a rug in a cheerful preschool room.¹ Babies were placed on the sheet or were held by their mothers, who sat in a circle, either on the rug or on low chairs. Side tables held refreshments and literature for the mothers to browse through, borrow, or keep. Folders were provided for hand-outs.

Program Procedure

The group met on eight² consecutive Thursdays (February 3 - March 24) from 1:00 to 2:30 p.m. However, most of the mothers stayed later for social conversation for up to an hour on every occasion. (One of the mothers, who also used the experience for college work, stayed for an extra half-hour for immediate discussion of the content and process of each meeting.) The first 15 minutes of the meetings were used for gradual convening, acclimating

¹The site was donated by the preschool owner-director because of her interest in the project; appropriate space in the Kaiser Medical Center was not available.

²An extra meeting for fathers was added on Saturday, March 19, due to interest developed during an early discussion.

babies to the environment, and socializing. Then the group participated in discussion of topics that were usually generated by the mothers, but were sometimes initiated by the leader or stimulated by shared observations of the babies. After approximately one hour of full-group discussion, the following 15 minutes, at a minimum, were used for informal planning, small group or one-to-one conversations, checking out the literature, and refreshments (unstructured social time). Throughout the meetings, the babies' needs for comforting, eating, changing, etc., were met by the mothers. As time passed and the babies began to respond more to the environmental stimuli, more attention was focused on their behavior.

Program Objectives and Methods

The major goal of the program was to enhance the mothers' positive feelings, particularly self-confidence, in the maternal role. Toward that end, the following component objectives were conceptualized, along with planned methods for achieving them:

- 1) improvement in mothers' understanding of child development; increased awareness of age-appropriate needs, behaviors, skills and individual differences (by mothers observing infants' wide-ranging changes; sharing and discussing literature and experiences;)

2) practice in decision-making as related to child-rearing and family dynamics; clarification of individuals' goals and values (by mothers participating with other parents and with professional leader in discussions, during which problems are defined and alternative solutions are explored);

3) development of parenting skills (by mothers hearing about, observing, and practicing techniques which have been found to be helpful);

4) relief of anxieties regarding competence as the primary caregiver (by mothers learning that many of their problems are both temporary and universal; by getting empathetic feedback to their expressed concerns; by getting positive reinforcement for their nurturing behavior);

5) relief of feelings of isolation and conflicts in regard to self-identity and the maternal role (by participants meeting other new mothers; airing feelings, decisions and problems in a "safe" environment; and establishing mutually supportive relationships).

Leader's Role as Facilitator

The role of the leader was treated as a critical component in planning for achievement of the stated objectives. In order to avoid the possible pitfall of undermining maternal self-confidence by becoming another "expert" with the "right" answers to child-rearing questions, a humanis-

tic approach to leading the group sessions was chosen. My intention was to "facilitate" the meetings in as democratic and non-authoritarian way as possible. That is, I attempted to:

- 1) promote involvement by encouraging the mothers to initiate most of the discussion topics and by focusing on their own experiences;
- 2) provide an environment conducive to airing concerns by giving non-judgmental feedback and by respecting each individuals' viewpoint;
- 3) promote the mothers' own decision-making by encouraging their ideas, pointing out valid alternatives, and reinforcing positive decision-making behaviors;
- 4) offer my own knowledge and experiences, along with screened literature, as optional resources for information;
- 5) maintain a flexible enough structure to allow for differences among individuals and for changing and unforeseen needs of the group;
- 6) create an ambience of shared learning by being humanly fallible, rather than trying to be a model of "success", and by placing value on all participants' contributions.

Some problems I encountered in this endeavor, e.g., pressure from some mothers for me to be more authoritarian and structured, will be discussed in Chapter 3.

CHAPTER III

OUTCOMES AND DISCUSSION

I am glad to have been included in this group. I feel I will be a better mother in years to come and I have learned the value of group discussion to meet my own needs ... and helping others to feel good about themselves.

--mother in program

This chapter will report and discuss the outcomes of the mother-infant program by: 1) identifying areas of negative feelings; 2) pointing out topics that were raised and relevant incidents that occurred during the group meetings; and 3) presenting mothers' opinions on the discussion approach, in the first sections. Another part will report the inventory scores, noting differences between groups and changes both in total scores and by sub-topics. Participants' self-evaluations of change in feelings will be presented. A final section will deal with additional indications of the effectiveness of this method.

Identification of Mothers' Problems (Pre-test)

The statements in the inventory can be broken down into three component sub-topics: 1) enjoyment of baby; 2) self-confidence vs. anxiety about parenting; and 3) isolation and identity conflicts. (See Appendices G, H, and I for individuals' responses to statements.) A response

of "1" (Strongly Disagree) or "2" (Disagree) was taken to mean that the mother did not experience the positive feeling expressed in the statement. Such responses, along with written comments on the pre-test, helped to identify some areas of negative feelings.

Enjoyment of Baby

This was the most basic of the three sub-topics and, according to the inventory responses, only one mother (E group) of the 25 in the sample indicated that she did not enjoy her baby. (See Appendix G).

Self-confidence

Eight mothers (E group-4; C₁ group-3; C₂ group-1) indicated through negative inventory responses (See Appendix H) that they felt some anxiety about a lack of knowledge or competence as a nurturing parent. The E mothers also said, typically, that they wanted ... "to gain a little confidence" ...and "reassurance". One mother stated, I'm having a little trouble adjusting to this whole new way of life and I don't always feel I'm doing a good job."

Mothers in the control groups indicated that their experiences in pre-natal education classes might have met similar needs for stronger self-confidence. A typical comment was that the class ... "provided me with knowledge that made me feel more secure in the way I have been bringing up my baby so far."

Isolation and Self-identity

Ten (E group-7; C₁ group-2; C₂ group-1) mothers' negative responses to the inventory statements in this area indicated that they had experienced feelings of isolation from adults and loss of identity in the maternal role. (See Appendix I). Comments made by the E mothers regarding what they hoped to gain from the group program were predominantly related to feelings of isolation. They said, typically, that they hoped to ... "meet people who have children the age of my baby" ... "get out of the house" ... and, "try to make new friends." One said, "I occasionally get angry and feel trapped."

Group Discussion Topics (Log of Meetings)

The material in this section is based on the anecdotal log of the mother-infant program, kept by the leader-investigator. Most of the discussion topics were generated by the mothers out of their own concerns. There were several recurring and/or fairly universal themes. For example, in the first meeting, one mother related the occurrence of post-partum depression symptoms, including anxiety attacks and migraine headaches. Others joined in with less clinical reports of crying "jags", guilt over disorganized housekeeping, forgetfulness, and feeling an overwhelming sense of responsibility. The sharing of these episodes

was considered by the mothers to be extremely beneficial to them. They said that knowing others had experienced these feelings ... "was a great relief". It also let them feel that they weren't ... "the only one", and they weren't ... "crazy". This topic recurred once in the latter part of the program.

A topic that recurred with regularity was the handling of unwanted negative advice and interference from relatives, neighbors and strangers. During several sessions, most of the mothers, in turn, ventilated feelings of suppressed anger (directed at their own mothers or mothers-in-law, primarily) because of this problem. Some alternative approaches to improving these situations were explored; e.g., being more assertive, trying to be tolerant of older people's needs, and using positive reinforcement (praise) for their more welcome contributions. Most of the women troubled by this dilemma indicated that they felt the problem would not change, but that airing their discomfort in the group setting helped. Also, they said they felt less vulnerable to criticism as time went by.

Along with extended family relationships, the quality of emotional and practical support from their husbands received some attention. Some mothers voiced concern about their spouses' lack of involvement with the baby. At the fathers' meeting which took place March 19, it seemed that

this problem had been alleviated. The fathers present agreed that they had become more involved as the babies grew more responsive.

An interesting change occurred midway through the meetings and the new trend continued throughout the remaining sessions; i.e., topics relating to parenting self-confidence, anxieties and inter-family relationships tapered off. During the fourth meeting, several mothers verbalized feelings of lowered anxiety and attributed this to the group. Typical comments were, "I feel much better since coming here;" "It really helps to talk to people." From that time on, the majority of the subjects raised had to do with getting information on the more pragmatic areas of child-rearing, e.g., making baby-food, feeding and nursing problems, babysitter issues, safe baby equipment, bed-clothes and pacifiers. Literature on many of these topics was distributed and discussed and advice was freely shared among participants. (The two nurses in the group were notable resources. One nurse, with special expertise in this field, made a significant contribution to the group's knowledge by demonstrating how to use cardio-pulmonary-resuscitation techniques on babies.)

Other topics, more abstract but still child-oriented, were explored throughout the eight meetings. These included: use of security objects, stranger-anxiety, bonding and

separation, value of toys and play, development of body-image, attitudes toward toilet-training and masturbation, encouragement of autonomy, respect for individuality, object permanence, language acquisition, mutuality, and changing patterns of behavior.

The major mother-oriented theme which continued to recur was the conflict over staying home or returning to work. One mother who had been working part-time sometimes said she was "better" for it, but at other times she expressed her discomfort over leaving her baby with others. Her ambivalence appeared to remain throughout the program. Another mother, more typically, had decided by the last meeting that she wanted to stay home for the next year or two, at least, and seemed to have resolved her sense of being "swallowed up by motherhood". This subject was related to having to deal with conflicting desires to be a "super-mother" and to be one's own self again with an identity separate from the maternal role. This topic was interwoven throughout the meetings, but comments indicated that a more relaxed attitude began to prevail toward the end. Remarks such as: ... "You have to be flexible", and ... "The baby needs her private world and so do I" ... were frequently heard.

A small percentage of the topics were initiated by the leader. In most cases, these topics were presented after mothers had expressed interest earlier or privately and a need had been identified. These subjects had to do with: 1) literature that was being shared; 2) theories relating to attachment and separation; 3) ways to promote children's emotional health and competence; 4) increasing babies' comfort during the meetings; 5) developmental landmarks in the first year; 6) resources in the community; and 7) accident-proofing homes.

Sometimes discussion was generated by observation of babies' activities during the meeting. On several occasions, new accomplishments such as rolling over for the first time elicited reactions of shared pleasure, while illustrating the widely ranging rates of normal development. Similarly, the uniqueness of each baby's temperament was observed and often remarked upon by participants, giving emphasis to my comments on individual differences.

Mothers' Reactions to Discussion Approach

Some interesting and related phenomena in the area of group dynamics were observed:

1) Several of the mothers in the program expressed a desire for a more didactic presentation of factual material. Some said that they were sometimes bored by listening to other people's problems not directly related to child

development. However, when some attempt was made to balance the informal discussions with a more structured "information approach", it was observed that several of the same mothers continued to raise concerns in the category of self-identity or family relationships. Also, in the final session, one woman who had been most interested in hearing about experts' theories on child-rearing remarked, "As time goes by you become more competent and feel better about yourself as a mother. Then there's not such a need to be grabbing for information."

2) Also, many of the concerns that were brought up by the mothers did not lend themselves to simple solutions and there was evidence of some frustration over this; e.g., one mother suggested that I might have curbed the "complaint-sessions" and turned them into better problem-solving sessions. However, it was frequently observed that ventilation and empathetic feedback did reduce the anxiety, anger, or other tensions involved, suggesting that time for "safe airing" might have been appropriate in these cases. A typical remark in the post-test was, "talking about problems with others does help". On several occasions, direct information and/or alternatives were presented however, I tried to be consistent with my objective of maintaining a more "facilitative" rather than an "authoritarian" leadership role.

Inventory Results

Total Scores

The E group started out with the lowest mean score for overall positive feelings as mothers, compared to the two control groups. (See Table 2 below.) The multiparous (C_2) mothers showed a mean score on the pre-test 12 points higher than that of the E group and six points higher than the mean score for the control group mothers with first-born infants. However, the E group's mean score on the post-test, self-administered eight weeks later, rose to 86, surpassing the C_1 group's mean post-test score of 84. The eight point mean gain of the E group was the largest, with the C_1 mothers' score remaining the same and the C_2 mothers showing an increase of one point. (See Appendix J for individual scores.)

Table 2
Summary of Mean Group Scores¹

Score Category	E (n=10)	C_1 (n=8)	C_2 (n=7)
Pre-test Mean	78	84	90
Pre-test Range	(56-89)	(74-92)	(80-100)
Post-test Mean	86	84	91
Post-test Range	(64-100)	(71-93)	(78-98)
Mean Change	+8	0	+1

¹

S.D.s were omitted because of the small number.

Changes in Feelings (Pre-test/Post-test Inventory Responses)

A breakdown of mean responses to inventory sub-topics according to groups shows the following changes taking place between pre-test and post-test responses. (See Table 3 below.) There was little or no change in the control groups' self-concept relating to any of the three component feelings studied or in the experimental group regarding the sub-topic "enjoyment of baby". The experimental group showed a slight mean gain in the area of isolation or identity conflicts. However, there was a comparatively large increase in the experimental group's mean response in the area of self-confidence. (See Appendix K for group mean responses and changes for each inventory statement.)

Table 3
Comparison of Mean Group Responses by Sub-topic

Sub-topics	E	C ₁	C ₂
<u>Enjoyment of Baby</u>			
Pre-test	4.6	4.6	4.8
Post-test	4.6	4.5	4.9
Change	0	-.1	+.1
<u>Self-confidence</u>			
Pre-test	3.5	3.9	4.4
Post-test	4.2	4.0	4.5
Change	+.7	+.1	+.1
<u>Isolation and Identity</u>			
Pre-test	3.8	4.1	4.4
Post-test	4.0	4.1	4.3
Change	+.2	0	-.1

Self-evaluation of Change

Comments made by Experimental Group (Post-test and Oral)

Enjoyment - All but one of the mothers said that they had experienced positive change in this area. Typical comments were: "I've learned to enjoy interacting and relating to him" ... and "I have more fun now, possibly because the baby can do more now".

Self-confidence - All ten of the women in the E group reported positive changes in their feelings of self-confidence as mothers and attributed these changes to the group program. For example: "The confidence gained from feeling your concerns are normal has been tremendous." Another aspect of this feeling related to the lowering of anxiety levels: "The group also helped me to realize that most other new mothers have all the same feelings and respond in much the same manner. This helped to alleviate the guilt and insecure feelings that I wasn't the perfect mother and therefore gave me more confidence in the ways I was handling situations." Another component concerned the gaining of information: "I have become more confident in myself as to how I care for my baby and I have learned a lot about child development and the growth and changes my baby has made and will make in the coming months."

Isolation and Self-identity - All but one of the mothers reported change in feelings of comfort in the maternal role. One remark, by the mother who was working part-time, was negative on this point: "I am worried about isolation if I do give up these 'outside activities'. "-- (which she cited as taking away time and energy that she would otherwise use for the baby.) The other eight mothers reported positively. As an example: "The first couple of weeks I was home I got to feeling that the earth was toppling over me, but I don't feel that way anymore".

Comments made by Control Groups (Post-test)

The following summary of the control groups self-evaluated feelings two months after the pre-test was extracted from written answers to post-test questions.

Enjoyment - Five of the eight C₁ mothers said that being a parent was what they had expected it to be or "even better". One mother was ambivalent about her pleasure from parenting and two were negative. All of the C₂ mothers answered this point positively.

Self-confidence - All of the control group mothers said that they had felt secure about the care of their baby during the previous two months. Three C₁ mothers and one C₂ mother had called the Kaiser clinic for non-medical advice, e.g., information on feeding, during this time.

Isolation - Five of the C_1 mothers said they were satisfied with the amount of adult company they had during the past two months. All of the C_2 said they had an adequate social life during this period. However, the majority (75%) of the C_1 mothers also said they would have joined a mother-infant group, if given the opportunity. Typically, this would have been ... "to come into contact with more new mothers". Also, 85% of the C_2 mothers said they would be interested in such a program ... "for information" and ... "to meet other mothers".

Additional Indications of Effectiveness of Group Method Socializing

All but one of the E group mothers were observed using the unstructured part of the program for animated one-to-one and small group conversations. All but one mother frequently stayed beyond the stipulated ending time for periods ranging up to one hour after every meeting. Several mothers made arrangements to get together socially on their own.

Attendance

The attendance record showed an average attendance of 83%. Half of the absences (7 out of 14) were due to colds or other illness. (The mothers had agreed not to come when there was a strong possibility of exposing the others

to a health problem.) The other seven absences were due to trips, out-of-town company, family emergency, transportation and moving problems.

Interest in Continuing the Group

Several mothers wanted to continue meeting together after the conclusion of the project. Various possibilities were discussed during the last few meetings, with the following outcome: three mothers were moving; three mothers joined a low-cost co-op play group and baby-sitting organization in their community; one mother joined the "Y" for mother-baby exercises after planned minor surgery; and three mothers decided to continue meeting at the same location, with the same format and leader, along with other mothers from the community, for a fee. Also, the mothers initiated the idea of a reunion next October, when the babies would be approximately one year old.

Mothers' Opinions of Group's Value

Achievement of some of the program's objectives are illustrated by the following comments made by the participants in the mother-infant group. Quotations are from the final meeting's tape recording and the written comments on the post-test:

On understanding development - "It was very good when you look at all the babies at the same age but in different

stages of development and can see that sooner or later they're all going to be doing this. It's better than reading the books that say, 'She should be doing this now'."

On looking at alternatives - "That was very valuable, too--to discover all the variety in people's schedules. ... You don't have to be rigid."

On resolving conflicts - "The group helped me be comfortable about deciding not to go back to work. I found that everybody here had found a lot of interesting things to do."

On a "safe" environment - "I enjoyed the comfortable atmosphere to talk about concerns."

On self-confidence - "I liked when we talked about our own mothers and our reactions to our mothers and our friends...how to put things in perspective and have self-confidence that we can trust our own judgement".

On isolation - "I feel better about being a mother. I definitely felt isolated from other adults and was looking for a way to meet other new mothers. This group was a God-send for my mental health."

CHAPTER IV

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In this final chapter, the major findings of the project will be summarized, a conclusion will be presented, and several recommendations for further investigation of this subject will be made.

Summary

Ten middle-class, educated new mothers volunteered to take part in an eight-week experimental program designed to provide child development information, socializing opportunities and, most importantly, psychological support for their confidence in themselves as parents.

The experimental group scored lower on a pre-test inventory of positive feelings, compared to two groups of mothers who did not take part in a parent education program. More specifically, there were indications that the experimental mothers had somewhat less self-confidence in the maternal role than did mothers of similar background in the control groups. However, on the post-test eight weeks later, the experimental mothers had made the greatest gain among the three groups in the study. This gain was most apparent in the area of self-confidence. The findings, although based on the small sample of this pilot

investigation, confirm the outcomes of the descriptive (narrative) aspect of the study.

In examining the log of the mother-infant group meetings and the participants' written and oral self-evaluations, a change in the women's self-concept as mothers was identified. According to the participants' opinions, anxiety about their competence as caregivers seemed to lessen as their self-confidence increased. Three reasons given by the mothers for this improvement were: 1) recognition that their concerns were almost always shared and/or temporary; 2) realization that they knew more about their own baby's unique temperament and needs than so-called "baby experts"; and 3) acquisition of some meaningful information for use in their own decision-making. Also, relief from the feeling of being isolated from adult company was observed and expressed by many mothers in the program. Several mothers appeared to resolve their conflicts regarding a sense of personal identity vs. immersion in the maternal role. Participants' comments clearly showed that they placed a value on the group method for these positive developments.

Conclusion

The findings reported in this study lead to the tentative conclusion that the program approach was effective in enhancing the self-concept of mothers of first-born infants. The increase in inventory scores of the experimental group should be, at least partly, attributable to the mother-infant program. Descriptive self-evaluations by participants in the program, as well as examination of content and process of the meetings, gave further reason to believe that the major objectives of the project had been met. At the end of the program, all of the participants reported that, in their own view, the mother-infant group had enhanced their positive feelings about themselves as mothers. The greatest improvement in self-concept was seen in the area of self-confidence in the maternal role. It remains to be shown whether the same results can be obtained with a larger sample, thus allowing for generalization to the target population of this research.

Recommendations

1. An obvious deficiency in this research is the lack of an adequate number to assure validity and reliability. Therefore, it is hoped that this study will be replicated with enough frequency to show whether the tendencies and patterns suggested in these findings can be generalized

to a larger population. Such validation would require several replications because increasing the size of any one group might require changing the approach. It is suggested that ten mothers should be the maximum for this type of group-discussion format with infants present. Seven or eight dyads would be an even more optimal number, but normal absence rates would be likely to accomplish that result.

2. A standardized, validated inventory would be a valuable addition to the battery of evaluation instruments. This would apply not only to the self-administered inventory developed for this study, but also to one involving the recording of externally observable behavior by an objective observer. This could provide a counter-balance to participants' self-evaluations of change and extend evaluation to the next step in the cause-and-effect chain, i.e., improved mother-infant interaction.

3. Other studies could be done with variations to this approach to see if the effect on this population varies accordingly.

4. It would be interesting, also, to see if this approach could be applied to other populations (i.e., mothers with a different cultural background) with similar results. Several parent-oriented programs cited in

Chapter 1 are examples of some similar approaches having been used successfully in the "disadvantaged" milieu.

5. The cost factor also needs to be examined further. The low professional leader/group member ratio in this approach indicates the probable necessity of some kind of subsidization, if wider application in communities is to be encouraged. As new groups have formed in the private sector, more mothers in middle-class suburban communities are becoming aware of their opportunities for this kind of support and are willing to pay for attendance. However, many mothers appear to be discouraged from joining because of the expense.

As one alternative, the Los Angeles Continuing Adult Education Department currently sponsors three such programs, providing a similar approach at a nominal fee to parents and these have been very well received. However, a disadvantage to these programs, in my view, is the excessively large number (for this format) required for enrollment in any one group in order to satisfy the Department's requirement of 15 adults in average daily attendance. Making an exception to this regulation, by counting the babies as people enrolled in the class, would greatly enhance the value of this source of subsidy. Other possible sources for funding, such as community mental health

agencies and medical organizations, need to be explored in order to make this approach available to a wider segment of the population.

6. It is also important to try to reach new mothers even earlier than two to four months post-partum. Many participants in this program said that they would have "come out" even sooner to this kind of comfortable setting including their infants, and that they would have profited even more had they been supported in this way during their earliest weeks with the baby. Cooperation from obstetricians, maternity ward nurses and natural childbirth educators would enable group leaders to contact prospective members for truly "post-partum" mother-infant groups. Ideally, pediatricians would welcome and utilize the parent-infant educator as a worthwhile addition to a team of professionals interested in providing a support system to young families.

I believe that development and evaluation of prevention-oriented programs for new parents, along with more clinical approaches, are important steps in the search for ways to help all children get a better start in life.

REFERENCES

- Aaronson, M. Future Directions in Parent Education Research. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Denver: 1975. (ERIC Document Reproduction Service No. ED 114 171).
- Ainsworth, M.D.S. Object Relations, Dependency and Attachment: A Theoretical Review of the Infant-Mother Relationship. Child Development, 1969, 40, 969-1025.
- Ainsworth, M.D.S. The Development of Infant-Mother Attachment. In B. Caldwell & H. Ricciuti (eds.) Review of Child Development Research, (Vol. 3). Chicago: University of Chicago Press, 1973.
- Ainsworth, M.D.S., Bell, S.M., & Stayton, D.J. Infant-Mother Attachment and Social Development: Socialization as a Product of Reciprocal Responsiveness to Signals. In M. Richards (ed.) The Integration of a Child into a Social World. London: Cambridge University Press, 1974.
- Ainsworth, M.D.S. & Blehar, M.C. Developmental Change in Behavior of Infants and Their Mothers Relevant to Close Bodily Contact. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Denver: 1975. (ERIC Document Reproduction Service No. Ed 114 205).
- Ainsworth, M.D.S., et al. Individual Differences in the Development of Some Attachment Behaviors. Merrill-Palmer Quarterly, 1972, 18(2).
- Badger, E.D. A Mother's Training Program--A Sequel Article. Children Today, 1972, (3), 7-11.
- Bell, R.Q. A Reinterpretation of the Direction of Effects in Studies of Socialization. Psychological Review, March, 1968, 75(2), 81-95.
- Bell, R.Q. Contributions of Human Infants to Caregiving and Social Interaction. In M. Lewis and L. Rosenblum (eds.) The Effect of the Infant On Its Caregiver. N.Y.: John Wiley & Sons, 1974.

- Bowlby, J. Attachment and Loss, Vol. 1. N.Y.: Basic Books, Inc., 1969.
- Brazelton, T.B. Infants and Mothers: Differences in Development. N.Y.: Dell, 1969.
- Bromwich, R.M. Working with Parents of Preschool Children. In R. Friedman (ed.) Family Roots of School Learning and Behavior Disorders. Springfield, Illinois: Thomas, 1973, p 227.
- Bromwich, R.M. Focus on Maternal Behavior in Infant Education. American Journal of Orthopsychiatry, July 1976, 46(3), 439-446.
- Bronfenbrenner, U. Is Early Intervention Effective? In B.Z. Friedlander, et al. (eds.) Exceptional Infant (Vol. 3), N.Y.: Brunner/Mazel, 1975.
- Broussard, E.R. & Hartner, M.S. Further Considerations Regarding Maternal Perceptions of the First-born. In J. Hellmuth (ed.) Exceptional Infant (Vol. 2). N.Y.: Brunner/Mazel, 1971.
- Carr, S.J., et al. Mother-Infant Attachment: The Importance of Mother's Distance and Visual Fields. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Denver: 1975. (ERIC Document Reproduction Service No. ED 111 500.)
- Chilman, C.S. Programs for Disadvantaged Parents. In B.M. Caldwell & H. Ricciuti (eds.) Review of Child Development Research, (Vol. 3). Chicago: University of Chicago Press, 1973.
- Clarke-Stewart, K.A. Dealing with the Complexity of Mother-Child Interaction. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Denver: 1975. (ERIC Document Reproduction Service No. ED 111 512).
- Clarke-Stewart, K.A. Interactions Between Mothers and Their Young Children: Characteristics and Consequences. Monographs of the Society for Research in Child Development, 1973, 38 (6-7, Serial No. 153).

- Coleman, R.W., Kris, E., & Provence, S. The Study of Variations of Early Parental Attitudes. In Eissler, et al (eds.) The Psychoanalytic Study of the Child. N.Y.: International University Press, 1953.
- Elardo, R., et al. The Relation of Infants' Home Environment to Mental Test Performance From 6-36 Months: A Longitudinal Analysis. Paper presented at the Southeastern Regional Meeting of the Society for Research in Child Development, Chapel Hill, North Carolina: 1974. (ERIC Document Reproduction Service No. ED 111 490).
- Escalona, S.K. & Corman, H.H. Early Life Experience and the Development of Competence. The International Review of Psychoanalysis, 1974, 1.
- Gordon, I.J. A Home Learning Center Approach to Early Stimulation. In J.L. Frost (ed.) Revisiting Early Childhood Education. N.Y.: Holt, Rinehart & Winston, Inc., 1973.
- Harlow, H.F. The Development of Affectional Patterns in Infant Monkeys. In B.M. Foss (ed.) Determinants of Infant Behavior, (Vol. 1). London: Methuen & Co., Ltd., 1961.
- Johnson, D.L. The Development of a Program for Parent-Child Education. In B.Z. Friedlander, et al. (eds.) Exceptional Infant, (Vol. 3). N.Y.: Brunner/Mazel, 1975.
- Karnes, M.B., et al. Educational Intervention at Home by Mothers of Disadvantaged Infants. Child Development, 1970, 41, 925-935.
- Lally, J.R., & Honig, A.S. Education of Infants and Toddlers from Low-Income and Low-Education Backgrounds: Support for the Family's Role and Identity. In B.Z. Friedlander, et al (eds.) Exceptional Infant, (Vol. 3). N.Y.: Brunner/Mazel, 1975.

- Lamb, M.E. Infant Attachment to Mothers and Fathers. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Denver: 1975. (ERIC Document Reproduction Service No. ED 111 501).
- Lambie, D., Bond, J.T., & Weikart, D.P. Framework for Infant Education. In B.Z. Friedlander, et al (eds.) Exceptional Infant, (Vol. 3), N.Y.: Brunner/Mazel, 1975.
- Lambie, D., et al. Home Teaching with Mothers and Infants. Ypsilanti, Mich.: High Scope Educational Research Foundation, 1974.
- Lieber, M. Mother-Toddler Groups as a New Source for Parent Education. Northridge, California: California State University, Northridge, 1975. (ERIC Document Reproduction Service No. ED 124 294).
- Levenstein, P. Cognitive Growth in Preschoolers Through Verbal Interaction with Mothers. American Journal of Orthopsychiatry, 1970, 40, 426-482.
- Maccoby, E. & Masters, J.C. Attachment and Dependency. In P.M. Mussen (ed.) Carmichael's Manual of Child Psychology, Vol. 2 (3rd ed.) N.Y.: John Wiley & Sons, Inc., 1970.
- Martin, B. Parent-Child Relations. In F.D. Horowitz (ed.) Review of Child Development Research, (Vol. 4). Chicago: University of Chicago Press, 1975.
- Pederson, F.A. Mother, Father and Infant as an Interactive System. Paper presented at the Annual Meeting of American Psychological Association, 1975. (ERIC Document Reproduction Service No. ED 111 858.)
- Ramey, C.T. & Mills, P.J. Mother-Infant Interaction Patterns as a Function of Rearing Conditions. Paper presented at the Biennial Meeting of the Society for Research in Child Development. Denver: 1975. (ERIC Document Reproduction Service No. ED 118 264.)

- Rosenthal, R. & Rosnow, R.L. The Volunteer Subject. N.Y.: Wiley-Interscience, 1975.
- Sander, L.W. The Longitudinal Course of Early Mother-Child Interaction--Cross-Case Comparison in a Sample of Mother-Child Pairs. In B.M. Foss (ed.) Determinants of Infant Behavior, (Vol. 4). London: Methuen & Co., Ltd., 1969.
- Schaefer, E.S. Need for Early and Continuing Education. In V.H. Denenberg (ed.) Education of the Infant and the Young Child. N.Y.: Academic Press, 1970.
- Schaefer, E.S. A Home Tutoring Program. In J.L. Frost (ed.) Revisiting Early Childhood Education. N.Y.: Holt, Rinehart & Winston, Inc., 1973.
- Schaefer, E.S. & Bayley, N. Maternal Behavior, Child Behavior and Their Intercorrelations from Infancy Through Adolescence. Monographs of The Society for Research in Child Development, 1963, 28 (3, Serial No. 87).
- Schaffer, H.R. & Emerson, P.E. The Development of Social Attachment in Infancy. Monographs of the Society for Research in Child Development, 1964, 29, (3 Serial No. 94).
- Thomas, A., Chess, S., & Birch, H.C. Behavioral Individuality in Early Childhood. N.Y.: New York University Press, 1963.
- Thomas, A., Chess, S., & Birch, H.C. Temperament and Behavior Disorders in Children. N.Y.: New York University Press, 1969.
- Tulkin, S.R. & Covitz, F.E. Mother-Infant Interaction and Intellectual Functioning at Age Six. Paper presented at the Biennial Meeting of The Society for Research in Child Development. Denver, Colo.: 1975. (ERIC Document Reproduction Service No. ED 111 514).
- White, B. Human Infants. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1971.
- White, B., et al. Child Rearing Practices and the Development of Competence. Final Report (Harvard Preschool Project) DHEW, 1974. (ERIC Document Reproduction Service NO. ED 116 780).

- Work, H.H. Parent-Child Centers: A Working Reappraisal. American Journal of Orthopsychiatry, 1972, 42, 582-595.
- Yarrow, L.J. Research in Dimensions of Early Maternal Care. In Spencer & Kass (eds.) Perspectives in Child Psychology. N.Y.: McGraw Hill, 1970.
- Yarrow, L.J. & Goodwin, M.S. Some Conceptual Issues in the Study of Mother-Infant Interaction. American Journal of Orthopsychiatry, 1965, 35(3), 474-479.
- Yarrow, L.J. & Klein, R.P. Consistency and Antecedents of Infant Attachment During the First Year. Research Related to Children, ERIC Bulletin No. 55, October 1976, (Abstract).
- Yarrow, L.J., et al. Dimensions of Early Stimulation: Differential Effects on Infant Development. Merrill-Palmer Quarterly, 1972, 18, 205-218.

REFERENCE NOTES

1. Parke, R. The Father's Role in Infancy--A Re-evaluation. Paper presented at the Third Annual Conference of Child Development, UCLA, Los Angeles November 1976.
2. Leiderman, P.H. Attachment and Affiliation: Implications for the Assessment of the Mother-Infant Relationship. Paper presented at Third Annual Conference of Child Development, UCLA, Los Angeles, November, 1976.
3. Bromwich, R.M. Educational Intervention with Infants at Risk for Developmental Disabilities in Childhood. Paper presented at the Third Pediatric Symposium: Planning and Developmental Programs, University of North Carolina at Chapel Hill, 1976.
4. Drezek, W. A Rationale for Infant Education in Natural Parenting: Implications for Curriculum. Paper presented at the Annual NAEYC Conference, Anaheim, California, November 1976. (Unpublished manuscript available from: Infant-Parent Training Program, 1226 East Ninth Street, Austin, Texas.)

APPENDIX A

INDIVIDUAL DEMOGRAPHIC DATA *

Group	Subject	Mother's Age	Mother's Education	Pre-natal Classes	Peri-natal Problems	Help Avail.	Child-care Situation
E	1	31	R.N., B.S.	L	N	Y	PW
	2	22	H.S.+	--	N	N	H
	3	25	B.A.	K, RC	N	Y	H
	4	29	B.A.+	Br, K	Y	Y	PS
	5	29	H.S.	K	N	Y	H
	6	26	B.A.	Br	N	N	H
	7	27	M.A.	L, K	Y	Y	H
	8	30	H.S.+	L, La	N	Y	PW
	9	28	B.A.+	L, K	N	N	H
	10	29	R.N.+	L	Y	N	H
C ₁	1	30	10 gr.	RC, K	N	Y	H
	2	25	H.S.	L, K	N	Y	H
	3	23	B.A.	L, K	N	N	H
	4	34	R.N.	--	Y	Y	PW
	5	24	H.S.	L, K	Y	Y	H
	6	25	B.A.	L	Y	Y	H
	7	29	M.A.	L, K	N	N	H
	8	31	B.A.	--	N	N	PS
C ₂	1	28	H.S.	L	N	N	H
	2	25	H.S.	--	N	Y	FW
	3	30	6th gr.	--	N	Y	H
	4	26	H.S.	L	N	Y	H
	5	23	H.S.	Br, K	N	Y	H
	6	36	H.S.+	JC	Y	Y	H
	7	25	H.S.+	L	Y	Y	H

* All subjects live in middle-class suburban L.A. communities.

All subjects except one (E10) utilize the Panorama City Medical Center (Kaiser Permanente Medical Plan)

Code: Pre-natal Classes

L - LaMaze
K - Kaiser
RC - Red Cross
Br - Bradley
La - LaLeche
JC - Jr. College

Child-care Situation

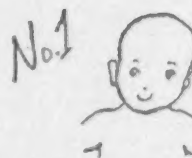
H - Home full-time
FW - Works full-time
PW - Works part-time
PS - Student part-time

Y - Yes
N - No

APPENDIX B

SAMPLE OF FLYER

Dear New Mother,



You and your first baby,
(healthy and born this Oct., Nov., or Dec.),
are invited to join a FREE 8-week

MOTHER - INFANT GROUP *

Meetings will be held on Thursdays during
Feb. and March, 1:00 - 2:30 p.m. - offering:

- child development information
- discussions on your concerns as a new parent
- a comfortable place to make new friends
- a safe environment for your baby

If interested, please call:

HARRIET KLEINMAN 989-5164

by Jan. 15, 1977

* This program is part of a research project studying the helpfulness of this approach to new parents. The group will be led by a graduate student with special training and experience in this field ... and three children.

APPENDIX C

SAMPLE OF COVER LETTER AND PRE-TEST (E GROUP)

January, 1977

Dear

As I mentioned on the phone, the enclosed questionnaire is part of the project you are participating in by joining our Mother-Infant Group. I want to assure you that personal identities will be totally excluded from my presentation of this study. Any information which you provide on the questionnaires or in our meetings will always be anonymous.

Therefore, please do not put your name on the following questionnaire. But do bring the completed forms with you to our first meeting:

Thursday, February 3, 1977
1:00-2:30 p.m.
6100 Coldwater Canyon Blvd.
(The Maggy Hayes School)
763-8359



If you have any question or problem about coming, please call me at 989-5164. (up to 11:00 p.m. O.K.)

See you soon!

Harriet
Harriet Kleinman

1

Code: E

Please DO NOT put your name on this form. Responses to the questionnaire must be anonymous.

QUESTIONNAIRE FOR NEW MOTHERS - PART I

Following is a list of statements regarding possible ways you might feel about yourself as a parent. Notice the number which corresponds to five possible responses to each statement:

Strongly Disagree - 1; Disagree - 2; Neutral - 3; Agree - 4; Strongly Agree - 5

Please read each statement, then circle the number for the response which fits most closely with your true feelings. Remember, there are no right or wrong answers. Just indicate your own personal opinion at this time.

1. I enjoy having my baby near me when he/she is awake. 1 2 3 4 5
2. I like playing with my baby. 1 2 3 4 5
3. I know what my baby's sounds and movements mean most of the time. 1 2 3 4 5
4. I am usually able to soothe my baby when he/she is distressed. 1 2 3 4 5
5. I understand my baby's moods and feelings. 1 2 3 4 5
6. I know my baby's needs better than the "baby book experts". 1 2 3 4 5
7. I enjoy feeding my baby. 1 2 3 4 5
8. I'm comfortable about the nutrition that I am providing for my baby. 1 2 3 4 5
9. I enjoy changing, bathing, and dressing my baby. 1 2 3 4 5
10. I can anticipate what my baby will be like in coming months. 1 2 3 4 5
11. I feel I can meet my baby's changing needs as he/she grows older. 1 2 3 4 5
12. I feel I am "growing" along with my baby. 1 2 3 4 5
13. I have enough time to pursue some personal interests outside of parenting. 1 2 3 4 5
14. I have contact with friends who share my current interests. 1 2 3 4 5

(E) 2

QUESTIONNAIRE - Part I (Continued)

- | | | | | | |
|---|---|---|---|---|---|
| 15. My husband and I basically agree on our goals, values and attitudes toward parenting. | 1 | 2 | 3 | 4 | 5 |
| 16. It's fun to "talk" with my baby. | 1 | 2 | 3 | 4 | 5 |
| 17. I feel good about being a mother. | 1 | 2 | 3 | 4 | 5 |
| 18. I think I have good "instincts" as a parent. | 1 | 2 | 3 | 4 | 5 |
| 19. I am content with the amount of help I get with child care. | 1 | 2 | 3 | 4 | 5 |
| 20. I am pleased with my baby's development. | 1 | 2 | 3 | 4 | 5 |

The following background information is also needed for this study. Remember, your name should not be on this page.

1. Your age: _____
2. Your baby's birthdate: _____
3. Did you or your baby have any unusual delivery or post-natal health problems? ____ If so, please explain briefly.

4. Did you take any prenatal classes? ____ If so, what kind?

5. What was your highest school or college level completed?

6. Do you have friends and/or relatives that you can call on easily for help?

7. Do you have (or plan to have in the near future) regular help in order to work or go to school? ____ If so, please give a brief description of your child-care situation.

8. Please list: 1) what you are hoping to gain from participation in the Mother-Infant Group and 2) any areas of concern you would particularly like to have brought up in our meetings. Use the back of the page if necessary.

APPENDIX D

SAMPLE OF COVER LETTER AND PRE-TEST (C GROUPS) TO MOTHERS OF BABIES NOW AGED TWO, THREE OR FOUR MONTHS . . .

January 1977

DEAR NEW MOTHERS:

The following questionnaire is part of a graduate project trying to determine if educational and support groups are helpful to new mothers. More information is needed to make future programs more effective. Therefore, your help would be greatly appreciated.

Please provide your name and address on this page only, so that I can mail you a short follow-up questionnaire in two months and thereby complete the study. Results will be available later in the year through the California State University Northridge library, with no names of participants included. All personal information will be totally anonymous.

You may leave the completed questionnaire with the clinic nurse today or mail it to me, whichever is easier for you. The mailing address is:

Mrs. Harriet Kleinman
6736 Allott Ave.
Van Nuys, Calif. 91401

Thank you for your cooperation.

YOUR NAME _____

ADDRESS _____

Code: C

1

Please DO NOT put your name on this form. Responses to the questionnaire must be anonymous.

QUESTIONNAIRE FOR NEW MOTHERS - PART I

Following is a list of statements regarding possible ways you might feel about yourself as a parent. Notice the number which corresponds to five possible responses to each statement:

Strongly Disagree - 1; Disagree - 2; Neutral - 3; Agree - 4; Strongly Agree - 5

Please read each statement, then circle the number for the response which fits most closely with your true feelings. Remember, there are no right or wrong answers. Just indicate your own personal opinion at this time.

- | | |
|--|-----------|
| 1. I enjoy having my baby near me when he/she is awake. | 1 2 3 4 5 |
| 2. I like playing with my baby. | 1 2 3 4 5 |
| 3. I know what my baby's sounds and movements mean most of the time. | 1 2 3 4 5 |
| 4. I am usually able to soothe my baby when he/she is distressed. | 1 2 3 4 5 |
| 5. I understand my baby's moods and feelings. | 1 2 3 4 5 |
| 6. I know my baby's needs better than the "baby book experts". | 1 2 3 4 5 |
| 7. I enjoy feeding my baby. | 1 2 3 4 5 |
| 8. I'm comfortable about the nutrition that I am providing for my baby. | 1 2 3 4 5 |
| 9. I enjoy changing, bathing, and dressing my baby. | 1 2 3 4 5 |
| 10. I can anticipate what my baby will be like in coming months. | 1 2 3 4 5 |
| 11. I feel I can meet my baby's changing needs as he/she grows older. | 1 2 3 4 5 |
| 12. I feel I am "growing" along with my baby. | 1 2 3 4 5 |
| 13. I have enough time to pursue some personal interests outside of parenting. | 1 2 3 4 5 |
| 14. I have contact with friends who share my current interests. | 1 2 3 4 5 |

(c) 2

QUESTIONNAIRE - Part I (Continued)

15. My husband and I basically agree on our goals, values and attitudes toward parenting. 1 2 3 4 5
16. It's fun to "talk" with my baby. 1 2 3 4 5
17. I feel good about being a mother. 1 2 3 4 5
18. I think I have good "instincts" as a parent. 1 2 3 4 5
19. I am content with the amount of help I get with child care. 1 2 3 4 5
20. I am pleased with my baby's development. 1 2 3 4 5

The following background information is also needed for this study. Remember, your name should not be on this page.

1. Your age: _____
 2. Your baby's birthdate: _____ First-born? _____
 3. Did you or your baby have any unusual delivery or post-natal health problems? _____ If so, please explain briefly.

 4. Did you take any prenatal classes? _____ If so, what kind?

 5. Have you been in any parent education class or groups since your baby's birth? _____ If so, what kind?

 6. What was your highest school or college level completed?

 7. Do you have friends and/or relatives that you can call on easily for help? _____
 8. Do you have (or plan to have in the near future) regular help in order to work or go to school? _____ If so, please give a brief description of your child-care situation.

- Optional: If you took any prenatal or parent education classes, what was your opinion of them? (value to you; your suggestions to other prospective parents, etc.) Use the back of this page if necessary.

THANK YOU FOR YOUR HELP!

APPENDIX E

SAMPLE OF POST-TEST (E GROUP)

Code: E

QUESTIONNAIRE FOR NEW MOTHERS - PART II

Two months have passed with your new baby. Following is a list of statements regarding possible ways you might feel about yourself as a parent at this time. As before, each statement is followed by numbers which correspond to five possible responses:

1-Strongly Disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly Agree

Please read each statement, then circle the number for the response which is closest to your true feelings at this time. Remember, there are no right or wrong answers, just your own personal opinion.

- | | |
|---|-----------|
| 1. I enjoy feeding my baby. | 1 2 3 4 5 |
| 2. I like playing with my baby. | 1 2 3 4 5 |
| 3. I'm pleased with my baby's development. | 1 2 3 4 5 |
| 4. I know my baby's needs better than the "baby book experts". | 1 2 3 4 5 |
| 5. I enjoy changing, bathing and dressing my baby. | 1 2 3 4 5 |
| 6. I have enough time to pursue some personal interests outside of parenting. | 1 2 3 4 5 |
| 7. I understand my baby's moods and feelings. | 1 2 3 4 5 |
| 8. I enjoy having my baby near me when he/she is awake. | 1 2 3 4 5 |
| 9. I am usually able to soothe my baby when he/she is distressed. | 1 2 3 4 5 |
| 10. I can anticipate what my baby will be like in coming months. | 1 2 3 4 5 |
| 11. I have contact with friends who share my current interests. | 1 2 3 4 5 |
| 12. I'm comfortable about the nutrition that I am providing for my baby. | 1 2 3 4 5 |
| 13. I think I have good "instincts" as a parent. | 1 2 3 4 5 |
| 14. I feel I can meet my baby's changing needs as he/she grows older. | 1 2 3 4 5 |
| 15. I know what my baby's sounds and movements mean most of the time. | 1 2 3 4 5 |

(E) 2.

PART II (continued)

- | | | | | | |
|---|---|---|---|---|---|
| 16. I am content with the amount of help I get with child care. | 1 | 2 | 3 | 4 | 5 |
| 17. My husband and I basically agree on our goals, values and attitudes toward parenting. | 1 | 2 | 3 | 4 | 5 |
| 18. It's fun to "talk" with my baby. | 1 | 2 | 3 | 4 | 5 |
| 19. I feel I am "growing" along with my baby. | 1 | 2 | 3 | 4 | 5 |
| 20. I feel good about being a mother. | 1 | 2 | 3 | 4 | 5 |

The following information is most important for evaluation of this project. Remember, don't put your name on this form. The questionnaire is coded so it can be matched to the one you filled in previously; your answers will be confidential. Please answer as honestly as you can.

1. Are you aware of any changes, during the past two months, in your feelings regarding:

	Yes	No
a) pleasure from your interactions with your baby?		
b) anxiety about your care of your baby?		
c) confidence in your knowledge of child development?		
d) "isolation" in the maternal role?		
e) conflicts involving your self-identity?		
2. If "yes" to any of the above, please explain.
3. Do you feel that any changes in your feelings can be attributed, in part, to your participation in our weekly mother-infant group meetings? ____ If so, how have the meetings helped you? What did you like?
4. Please use the back of this page to tell as fully as can:

a) what you would have changed to meet your <u>own</u> needs better and b) any suggestions you may have for helping other new mothers in a group setting.

THANK YOU!!!

APPENDIX F

SAMPLE OF COVER LETTER AND POST-TEST (C GROUPS)

March 1977

Hello again!

You were so good about returning my "new mothers" questionnaire two months ago. I know that there have exciting changes in your baby since that time and I hope that you and your family are flourishing!

Here is the follow-up form, Part II, that is needed to complete my study of the helpfulness of mother-infant groups.

This form is coded, so it can be matched to the one you filled in previously. After addressing these envelopes I am discarding names and addresses so that no connection between written material and personal identities will exist. Please be assured that what you provide will remain anonymous.

I would appreciate your sending back this questionnaire, in the enclosed stamped envelope, as soon as possible. To be of use in this project, the completed form must be in my hand by April 1. Thank you so very much for helping me...and future new mothers!

P.S. If you are interested in reading the results of this project, you will find a copy of the thesis in the California State University Northridge library next Fall under "Effect of a Mother-Infant Program on Positive Feelings of New Mothers", by Harriet Kleinman

Also, if you would like to know about mother-infant groups for yourself or a friend, please feel free to call me at 989-5164 or include a separate note with your name and phone number.

Code: C

QUESTIONNAIRE FOR NEW MOTHERS - PART II

Two months have passed with your new baby. Following is a list of statements regarding possible ways you might feel about yourself as a parent at this time. As before, each statement is followed by numbers which correspond to five possible responses:

1-Strongly Disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly Agree

Please read each statement, then circle the number for the response which is closest to your true feelings at this time. Remember, there are no right or wrong answers, just your own personal opinion.

- | | |
|---|-----------|
| 1. I enjoy feeding my baby. | 1 2 3 4 5 |
| 2. I like playing with my baby. | 1 2 3 4 5 |
| 3. I'm pleased with my baby's development. | 1 2 3 4 5 |
| 4. I know my baby's needs better than the "baby book experts". | 1 2 3 4 5 |
| 5. I enjoy changing, bathing and dressing my baby. | 1 2 3 4 5 |
| 6. I have enough time to pursue some personal interests outside of parenting. | 1 2 3 4 5 |
| 7. I understand my baby's moods and feelings. | 1 2 3 4 5 |
| 8. I enjoy having my baby near me when he/she is awake. | 1 2 3 4 5 |
| 9. I am usually able to soothe my baby when he/she is distressed. | 1 2 3 4 5 |
| 10. I can anticipate what my baby will be like in coming months. | 1 2 3 4 5 |
| 11. I have contact with friends who share my current interests. | 1 2 3 4 5 |
| 12. I'm comfortable about the nutrition that I am providing for my baby. | 1 2 3 4 5 |
| 13. I think I have good "instincts" as a parent. | 1 2 3 4 5 |
| 14. I feel I can meet my baby's changing needs as he/she grows older. | 1 2 3 4 5 |
| 15. I know what my baby's sounds and movements mean most of the time. | 1 2 3 4 5 |

Part II (Continued)

(c) 2

- | | | | | | |
|---|---|---|---|---|---|
| 16. I am content with the amount of help I get with child care. | 1 | 2 | 3 | 4 | 5 |
| 17. My husband and I basically agree on our goals, values and attitudes toward parenting. | 1 | 2 | 3 | 4 | 5 |
| 18. It's fun to "talk" with my baby. | 1 | 2 | 3 | 4 | 5 |
| 19. I feel I am "growing" along with my baby. | 1 | 2 | 3 | 4 | 5 |
| 20. I feel good about being a mother. | 1 | 2 | 3 | 4 | 5 |

The following information is also needed. Remember, don't put your name on this form; answers will be confidential.

1. During the past two months, have you changed your work/student/homemaker status? _____ If so, what are your child-care arrangements? _____
2. What kinds of outings have you taken with your baby since last January? (Example: social visits to friends' homes) _____
3. Have you been satisfied by the amount of time you have had in the company of other adults since January? _____
4. Have you felt secure about the care of your baby during the past two months? _____
5. Have you needed medical care for your baby during this time (not including routine check-up or immunizations)? _____ If so, please explain briefly. _____
6. Have you called Kaiser for any non-medical advice? _____ If so, on what topic? (Ex: feeding) _____
7. Is being a parent what you expected it to be? _____
8. If you had been offered an opportunity to join a mother-infant group during the past two months (regular meetings with other mothers and babies for socializing, sharing parenting concerns and learning about child development from an early childhood specialist) would you have been interested? _____ Why, or why not? _____

APPENDIX G

INDIVIDUAL RESPONSES TO INVENTORY STATEMENTS ON SUB-TOPIC: ENJOYMENT OF BABY

S	Feeding Baby			Playing			Development			Routine Care			Baby's Presence			"Talking"		
	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	4	4	0	5	5	0	5	5	0	4	4	0	5	4	-1	5	5	0
2	5	5	+1	5	5	0	5	4	-1	5	5	+1	5	4	0	5	5	0
3	5	5	+1	5	5	+1	5	5	-1	5	5	+2	5	5	0	5	5	+2
4	5	5	0	5	5	0	5	5	0	5	5	0	5	5	+1	5	5	0
5	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
6	5	5	-1	5	5	0	5	5	-1	5	5	0	5	5	0	5	5	-1
7	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
8	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
9	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
10	5	5	0	5	5	0	5	5	0	5	5	+1	5	5	+1	5	5	-1
11	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
C ₁	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
2	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
3	5	5	+1	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
4	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
5	5	5	0	5	5	+1	5	5	0	5	5	0	5	5	0	5	5	0
6	5	5	0	5	5	0	5	5	-1	5	5	0	5	5	0	5	5	0
7	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
8	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
9	5	5	-1	5	5	0	5	5	0	5	5	+1	5	5	0	5	5	0
C ₂	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	4	4	0	4	4	0	5	4	-1	4	4	0	5	4	-1	5	5	0
2	5	5	+1	5	5	0	5	5	0	5	5	+1	5	5	+1	5	5	0
3	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
4	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0
5	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	+1
6	5	5	0	5	5	0	5	5	0	5	5	+1	5	5	0	5	5	0

Code: I - Pre-test
II - Post-test
Ch. - Change

APPENDIX H

INDIVIDUAL RESPONSES TO INVENTORY STATEMENTS ON SUB-TOPIC: SELF-CONFIDENCE

S	Understanding Baby's Needs			Understanding Temperament			Able to Soothe			Providing Nutrition			"Maternal Instincts"			Feeling Flexible			Reading "Cues"			Anticipating Development		
	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	3	4	+1	3	3	0	4	5	+1	5	4	-1	3	4	+1	3	3	0	4	3	-1	3	4	+1
2	3	5	+2	3	4	+2	4	5	+1	3	3	0	3	3	+2	3	3	0	3	4	+1	3	2	0
3	5	4	-1	2	4	+2	3	5	+2	3	4	+1	3	3	0	3	5	+2	2	4	+2	3	4	+1
4	4	5	+1	4	5	+1	4	5	+1	3	5	0	3	5	0	4	5	+1	4	5	+1	4	5	+1
5	3	3	0	4	4	0	4	4	-1	4	4	-1	3	4	0	4	4	0	4	4	0	3	4	+1
6	3	4	+1	4	4	0	4	5	+1	4	3	-1	3	4	+1	3	4	+1	3	5	+2	1	4	+3
7	1	3	+2	3	5	+2	3	5	+2	3	5	0	3	4	+1	3	4	0	5	5	0	4	5	+1
8	3	4	+1	4	4	0	4	5	+1	3	4	-1	3	4	+1	3	4	+1	4	4	0	3	4	+1
9	3	5	+2	3	4	+1	4	5	+1	4	4	0	4	4	0	4	4	0	4	5	+1	2	4	+2
10	2	5	+3	2	4	+2	4	5	+1	4	4	0	4	4	0	4	4	0	4	5	+1			
C ₁	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
2	4	5	+1	4	5	+1	5	5	0	5	5	0	5	5	0	5	4	-1	4	4	0	4	4	0
3	4	4	0	3	4	+1	4	4	0	4	5	+1	4	4	0	4	5	+1	4	4	0	2	2	0
4	4	4	0	4	4	0	4	4	0	4	4	0	5	4	-1	4	4	0	5	4	-1	3	3	+1
5	3	3	0	2	3	+1	4	4	0	4	4	0	5	4	0	4	5	+1	3	4	+1	4	4	0
6	3	4	+1	4	5	+1	5	5	0	4	4	0	5	5	0	4	4	0	4	5	+1	2	3	0
7	4	4	0	4	4	0	4	5	+1	5	5	0	5	5	0	5	4	-1	4	5	+1	2	1	-1
8	2	3	+1	4	1	-3	4	5	+1	2	3	+1	5	5	0	5	4	-1	5	5	+1			
C ₂	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	4	4	0	3	4	+1	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	3	3	0
2	5	5	0	4	5	+1	5	5	0	4	5	+1	5	5	0	5	5	0	5	5	0	4	5	+1
3	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	4	-1
4	5	5	0	5	4	-1	5	5	0	5	5	+1	5	5	0	5	5	0	5	5	0	2	4	+2
5	4	3	-1	5	4	0	5	4	-1	5	5	0	4	4	0	4	4	0	5	3	0	4	4	0
6	3	4	+1	4	4	0	5	5	0	5	5	0	5	4	-1	5	4	-1	5	5	0	3	3	0
7	4	5	+1	4	5	+1	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	3	4	+1

Code: I - Pre-test
II - Post-test
Ch. - Change

APPENDIX I

INDIVIDUAL RESPONSES TO INVENTORY STATEMENTS ON SUB-TOPIC: ISOLATION AND IDENTITY CONFLICTS

S	"Personal" Time			Contact with Friends			Adequate Help			Agreement with Spouse			Personal Growth			Enjoying Maternal Role		
	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	5	4	-1	5	4	-1	5	3	-2	5	4	-1	4	4	0	5	4	-1
2	1	1	0	1	2	+1	1	1	0	2	2	0	4	3	-1	3	2	-1
3	2	2	0	3	4	+1	4	2	-2	5	4	-1	4	5	+1	5	4	-1
4	4	5	+1	4	5	+1	5	5	0	4	5	+1	4	5	+1	5	5	0
5	4	4	0	2	4	+2	5	3	0	2	5	+2	5	5	0	5	5	0
6	2	3	+1	2	3	+1	2	3	+1	2	4	0	4	4	0	4	4	0
7	1	5	+4	5	5	0	5	5	0	4	4	0	4	5	+1	5	5	0
8	4	4	0	4	5	+1	4	4	0	4	5	+1	5	5	0	5	5	0
9	2	4	+2	1	4	+3	2	4	+2	4	4	0	5	5	0	5	5	0
10	4	4	0	4	4	0	4	4	0	5	5	0	5	5	0	4	5	+1
C ₁	I			II			I			II			I			II		
	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0	4	4	0
2	3	3	0	5	5	0	4	4	0	5	4	-1	4	5	+1	5	5	0
3	4	5	+1	5	5	0	3	4	+1	5	5	0	5	5	0	4	5	+1
4	4	2	-2	4	5	+1	4	5	+1	3	3	0	5	5	0	5	5	0
5	2	2	0	2	2	0	3	3	0	4	5	+1	4	4	0	5	5	-1
6	4	4	0	4	5	+1	3	4	+1	5	5	0	4	4	0	5	5	0
7	5	5	0	4	4	0	5	4	-1	5	4	-1	4	5	+1	5	5	0
8	3	3	0	3	1	-2	2	2	0	5	5	0	5	4	-1	4	4	0
C ₂	I			II			I			II			I			II		
	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.	I	II	Ch.
1	2	4	+2	4	3	-1	4	4	0	4	3	-1	4	4	0	5	4	-1
2	3	4	+1	5	5	0	3	3	0	4	5	+1	5	5	0	5	5	0
3	5	4	-1	5	4	-1	5	4	-1	5	4	-1	5	4	-1	5	5	0
4	5	5	0	5	5	0	5	5	0	5	5	0	4	5	+1	4	5	+1
5	3	3	0	4	4	0	4	4	0	4	4	0	4	4	0	5	5	0
6	3	3	0	4	4	0	5	5	0	4	4	0	5	5	0	5	5	0
7	4	4	0	5	4	-1	4	4	0	5	5	0	5	5	0	5	5	0

Code: I - Pre-test
II - Post-test
Ch. - Change

APPENDIX J INDIVIDUAL INVENTORY SCORES

<u>E Group</u>				<u>C₁ Group</u>				<u>C₂ Group</u>			
S	I	II	Ch.	S	I	II	Ch.	S	I	II	Ch.
1	85	80	- 5	1	80	80	0	1	80	78	- 2
2	56	64	+ 8	2	92	93	+ 1	2	89	97	+ 8
3	71	83	+12	3	79	86	+ 7	3	100	93	+ 7
4	83	100	+12	4	88	86	- 2	4	94	98	+ 4
5	86	90	+ 4	5	74	77	+ 3	5	85	84	- 1
6	74	76	+ 2	6	88	91	+ 3	6	91	90	- 1
7	72	89	+17	7	90	90	0	7	92	95	+ 3
8	88	94	+ 6	8	28	71	- 7				
9	74	83	+14								
10	82	91	+ 9								

Code: I - Pre-test
 II - Post-test
 Ch.- Change

APPENDIX K

MEAN GROUP RESPONSES TO INVENTORY STATEMENTS

Sub-topic Areas	E Group			C ₁ Group			C ₂ Group		
	I	II	Ch.	I	II	Ch.	I	II	Ch.
<u>ENJOYMENT OF BABY</u>									
Feeding baby	4.4	4.4	0	4.5	4.5	0	4.7	4.9	+2
Playing with baby	4.8	4.9	+1	4.5	4.4	-1	4.9	4.9	0
Baby's Development	4.8	4.4	-4	4.3	4.6	+3	5.0	4.9	-1
Routine care	4.2	4.6	+4	4.1	4.2	+1	4.3	4.5	+2
Baby's presence	4.6	4.7	+1	4.6	4.4	-2	4.9	4.9	0
"Talking" with baby	4.7	4.8	+1	4.9	4.9	0	4.9	5.0	+1
<u>SELF-CONFIDENCE VS. ANXIETY</u>									
Understanding needs	3.0	4.2	+1.2	3.5	3.9	+4	4.3	4.4	+1
Understanding temperament	3.3	4.1	+8	3.6	3.7	+1	4.1	4.4	+3
Ability to soothe	3.8	4.4	+6	4.2	4.5	+3	4.9	4.7	-2
Providing nutrition	4.4	4.2	-2	4.1	4.4	+3	4.6	4.9	+3
"Maternal instincts"	3.2	3.9	+7	4.6	4.4	-2	4.7	4.6	-1
Feeling flexible	3.5	4.0	+5	4.3	4.3	0	4.7	4.4	-3
Feeling "easy"	3.7	4.4	+7	4.1	4.4	+3	4.6	4.6	0
Anticipating development	2.9	3.9	+10	3.1	3.1	0	3.4	3.9	+5
<u>ISOLATION AND IDENTITY CONFLICTS</u>									
"Personal" time	2.9	3.5	+6	3.6	3.5	-1	3.6	3.9	+3
Contact with friends	3.6	4.0	+4	3.9	3.9	0	4.6	4.1	-5
Adequate help	3.5	3.4	-1	3.5	3.8	+3	4.2	4.1	-1
Agreement with spouse	4.0	4.2	+2	4.5	4.4	-1	4.4	4.2	-2
Personal growth	4.4	4.6	+2	4.4	4.5	+1	4.6	4.6	0
Enjoyment in maternal role	4.6	4.4	-2	4.6	4.6	0	4.9	4.9	0

Codes: I - Pre-test
 II - Post-test
 Ch. - Change